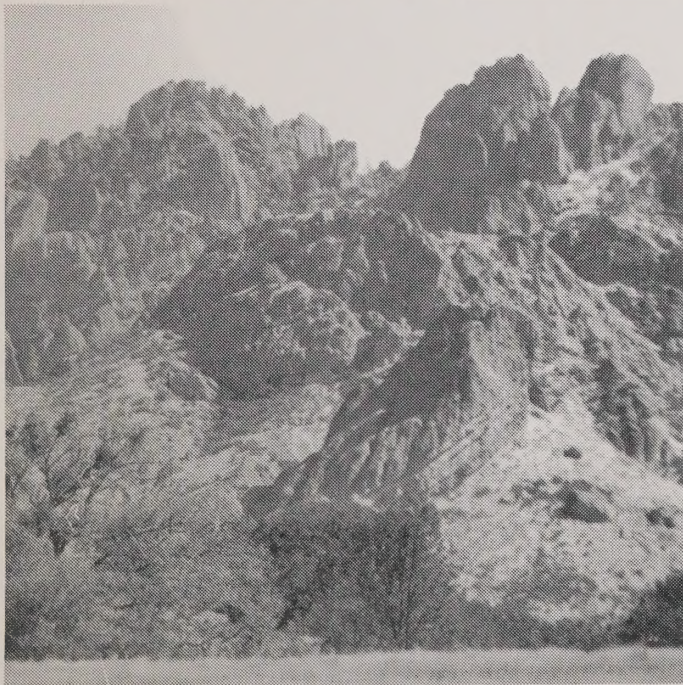


CENTRAL SALINAS VALLEY AREA PLAN



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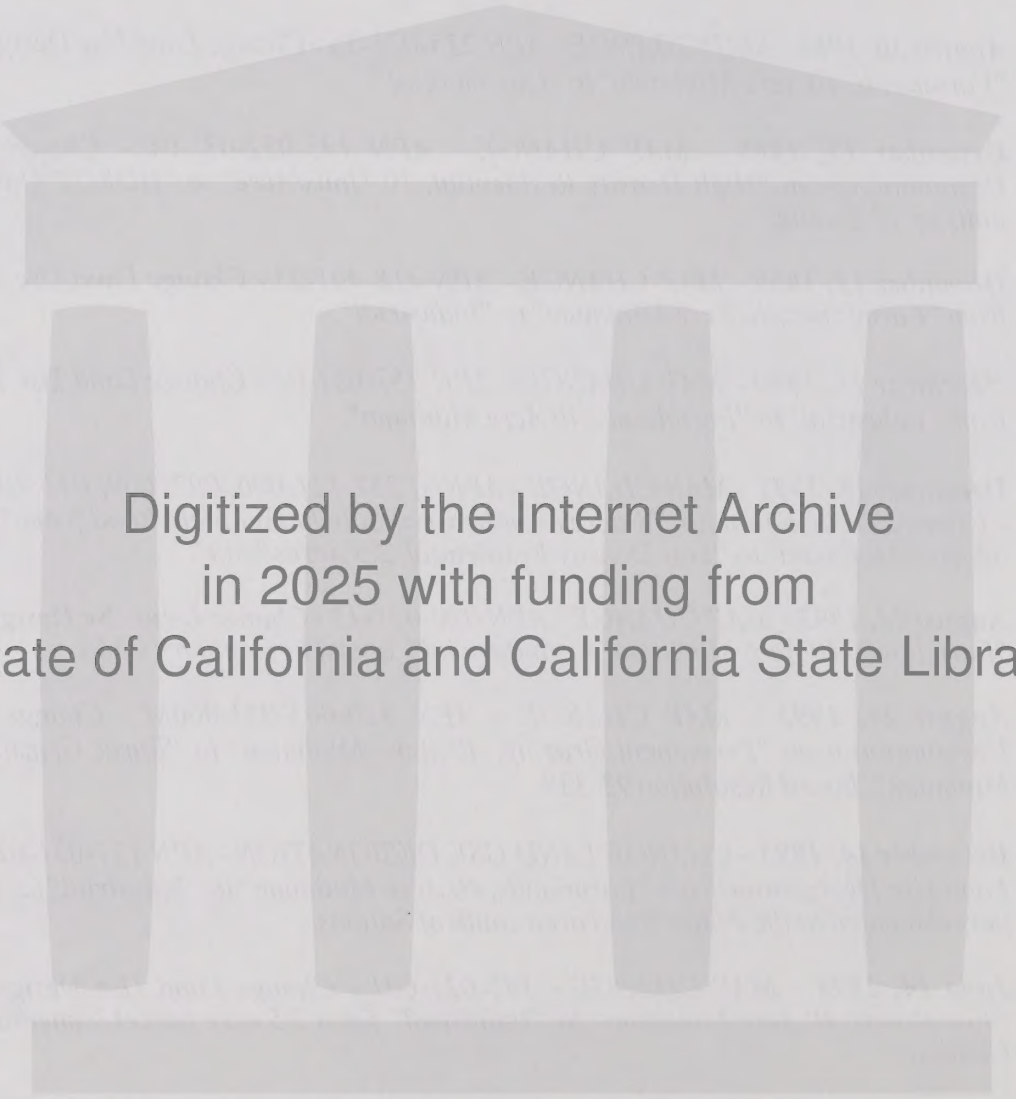
Approved by the Planning Commission on September 9, 1987
Adopted by the Board of Supervisors on November 24, 1987

UPDATE INDEX

CENTRAL SALINAS VALLEY AREA PLAN - AMENDMENTS

As Adopted by the Monterey County Board of Supervisors for the following date(s):

1. *August 30, 1988 - MAP CHANGE - APN 235-071-16 - Change Land Use Designation from "Farmlands, 40 Acre Minimum" to "Commercial".*
2. *December 12, 1989 - MAP CHANGE - APN 145-052-03, 04 - Change Land Use Designation from "High Density Residential, 10 Units/Acre" to "HDR 12 Units/Acre" 12 units or 17.5 units.*
3. *December 12, 1989 - MAP CHANGE - APN 418-401-23 - Change Land Use Designation from "Farmlands, 40 Acre Minimum" to "Industrial".*
4. *December 11, 1990 - MAP CHANGE - APN 257-031-02 - Change Land Use Designation from "Industrial" to "Farmlands, 40 Acre Minimum".*
5. *December 15, 1992 - MAP CHANGE - APN(s) 257-121-006; 007; 009; 011; 013; 015-023 - Change Designation for 78 acres southeast of Soledad on Metz Road from "Farmlands, 40 Acre Minimum" to "Low Density Residential, 2.5 Acres/Unit".*
6. *August 24, 1993 - MAP CHANGE - APN 020-021-11 - Change Land Use Designation from "Farmlands, 40 Acre Minimum" to "Industrial", Board Resolution 93-338.*
7. *August 24, 1993 - MAP CHANGE - APN 420-063-033-000M - Change Land Use Designation from "Permanent Grazing, 40 Acre Minimum" to "Rural Grazing, 40 Acre Minimum", Board Resolution 93-339.*
8. *December 14, 1993 - CHANGE LAND USE DESIGNATION - APN 137-051-028 - Change Land Use Designation from "Farmlands, 40 Acre Minimum" to "Industrial" for a 11.9 acre parcel located in the Potter Road area south of Salinas.*
9. *June 14, 1994 - MAP CHANGE - 145-021-001 - Change Land Use Designation from "Farmlands, 40 Acre Minimum" to "Industrial" for a 2.5 acre parcel immediately west of Chualar.*
10. *December 5, 1995 - MAP CHANGE - APNs 420-051-011-000; 420-051-012-000; 420-051-013-000; 420-051-014-000 - Change land use designation from "Public/Quasi-Public" to "Resource Conservation, 40 Acre Minimum."*
11. *December 5, 1995 - MAP CHANGE - APNs 419-101-001-013-000; 017-000; 057-000; 060-000; 419-081-012-000; 062-000; 063-000; 418-361-006-000; 418-381-026-000; 111-021-006-000; 109-491-005-000 - Change land use designation from "Permanent Grazing, 40 Acre Minimum" and "Farmlands, 40 Acre Minimum" to "Rural Grazing, 40 Acre Minimum."*



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CENTRAL SALINAS VALLEY AREA PLAN

PHILOSOPHY

The Central Salinas Valley Area Plan was prepared under the guidance of the Central Salinas Valley Citizens' Advisory Committee (CAC), appointed by the Board of Supervisors on December 6, 1983. The thirteen member CAC represents a cross section of individuals in an area with a long tradition of working with the land. The process of developing this area plan provided a high degree of citizen involvement allowing many residents the opportunity to help shape future development. The Central Salinas Valley Area Plan reflects the values and desires of many local residents sharing common concerns for the Central Salinas Valley and Monterey County as a whole.

The ideological foundation of the Central Salinas Valley Area Plan is preservation of the area's agricultural vitality and rural character. Accommodating growth within this context will maintain the economic stability and quality of life for present and future residents of Central Salinas Valley.

Expansive agricultural areas, open spaces, scenic hillsides, clean air and water are among the resource attributes from which Central Salinas Valley derives its special sense of place. Protection of these resources will reinforce County efforts to conserve agricultural lands and the Planning Area's agricultural economy.

The County's population will continue to grow. The rural lifestyle, relatively low cost of land, and job opportunities in the agricultural and service industries will attract families to settle in Central Salinas Valley.

The Plan attempts to accommodate these often inconsistent land uses by directing growth to areas where development will have the least impact on agricultural activities. The majority of growth in the Planning Area is expected to occur within the jurisdiction of the valley cities. Specific areas are designated on the land use plan which are reserved for future expansion and growth of the cities through the annexation process. In the unincorporated area, the Plan directs growth away from remote areas and towards areas where some development has already occurred and where public services and facilities are available. The Plan provides for residential development within the unincorporated area in sufficient quantity to accommodate the housing needs of present and future County residents. The Plan also provides areas for the expansion of industries currently experiencing growth and providing jobs.

Growth within the Planning Area must be accomplished within the limits of the Area's natural and constructed constraints. Fire hazards, seismic and geologic hazards, transportation system capacity, water and sewage system capacity, and environmentally sensitive areas are some of the constraints which must be evaluated before development may be authorized as shown on the land use plan.

The Plan, therefore, attempts to accommodate the growth and maintenance of existing and expected land uses while preserving the quality of life for all residents of the Planning Area.

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INTRODUCTION

The Central Salinas Valley Area Plan is part of the Monterey County General Plan.^{1/} The General Plan addresses all aspects of future growth, development, and conservation. State law requires that the County adopt such a plan and that the plan must meet minimum requirements regarding its content. A general plan must address seven specific subject areas or elements: land use, circulation, housing, conservation, open space, noise, and safety. It must include text and graphic materials which represent the County's goals, objectives, and policies. Furthermore, a general plan's components must comprise a well integrated document which is internally consistent. The matrix in Chapter VII, Appendix A, shows how the organization of this area plan relates to the seven elements currently required by state law. The matrix also shows the additional "permissive" elements addressed in this plan.

Monterey County's General Plan represents the long-range goals, objectives, and policies for the County. Users of this area plan are referred to the background reports, prepared for the Monterey County General Plan, for a discussion of countywide concerns and issues which led to the formation of the countywide policies listed in the General Plan.

The Central Salinas Valley Area Plan is the fifth of eight area plans of Monterey County which address local issues. Area plans are more specific than the General Plan due to their smaller geographic focus. Since development opportunities, constraints, and natural resources of the Central Salinas Valley^{2/} are unlike those in other parts of the County, the policies for this area plan are more precisely adapted to the characteristics of this area than are the more general policies of the General Plan. Area plans must be consistent with the General Plan and must address all subjects required by state planning law.

Citizen participation is an integral part of the planning process. Citizen Advisory Committees help guide the formation of goals, objectives, and policies of both the General Plan and the eight area plans. The public also has the opportunity for comment during the public hearings of the County Planning Commission and Board of Supervisors. After considering all public comments, the Planning Commission will formally forward the Plan along with its recommendation to the Board of Supervisors. It is the Board's responsibility to take final action on each plan.

1 "Monterey County General Plan" or "General Plan" refers to any part of the body of information which includes the countywide policy plan, the countywide land use plan, and the eight area plans.

2 Throughout this report, the geographical area defined as the "Central Salinas Valley" (Figure 1) shall be also referred to as the "Planning Area".

After adoption, a plan must be implemented so that it will apply in an explicit manner to each parcel of property, and address every development proposal made in the County. Regulations and programs will be used to properly implement each plan once it is adopted. These implementation measures include zoning regulations, subdivision regulations, capital improvements programming, and project review under the California Environmental Quality Act. Each of these measures has its own focus and purpose and all of these must be in accord with the goals, objectives, and policies adopted in the General Plan.

PART I: Inventory and Analysis

CHAPTER I: NATURAL RESOURCES

In preparing an area plan for the Central Salinas Valley, it is essential to have an understanding of the characteristics of the land, the physical features and natural resources. These characteristics determine the area's land use opportunities and limitations, thereby shaping the setting in which man's physical development takes place. The unique combination of natural resources in the Central Salinas Valley provides considerable opportunities for a variety of land uses.

The natural resources discussed in this plan can be characterized either as those which are unaffected by man or as those which may be depleted or destroyed through improper management. Geology and climate are natural phenomena which have remained essentially unchanged by man's activities. The remaining categories of this section -- minerals, soils, water, vegetation, wildlife, environmentally sensitive areas, and archaeological resources -- may be significantly altered or even destroyed through misuse.

NATURAL RESOURCES

GEOGRAPHY AND CLIMATE

Figure 1 shows that the Central Salinas Valley contains roughly all lands between the communities of Chualar in the north and San Lucas in the south. The San Benito County line forms the eastern boundary, while the boundary to the southwest is formed by the Hunter-Liggett Military Reservation and the Los Padres National Forest.

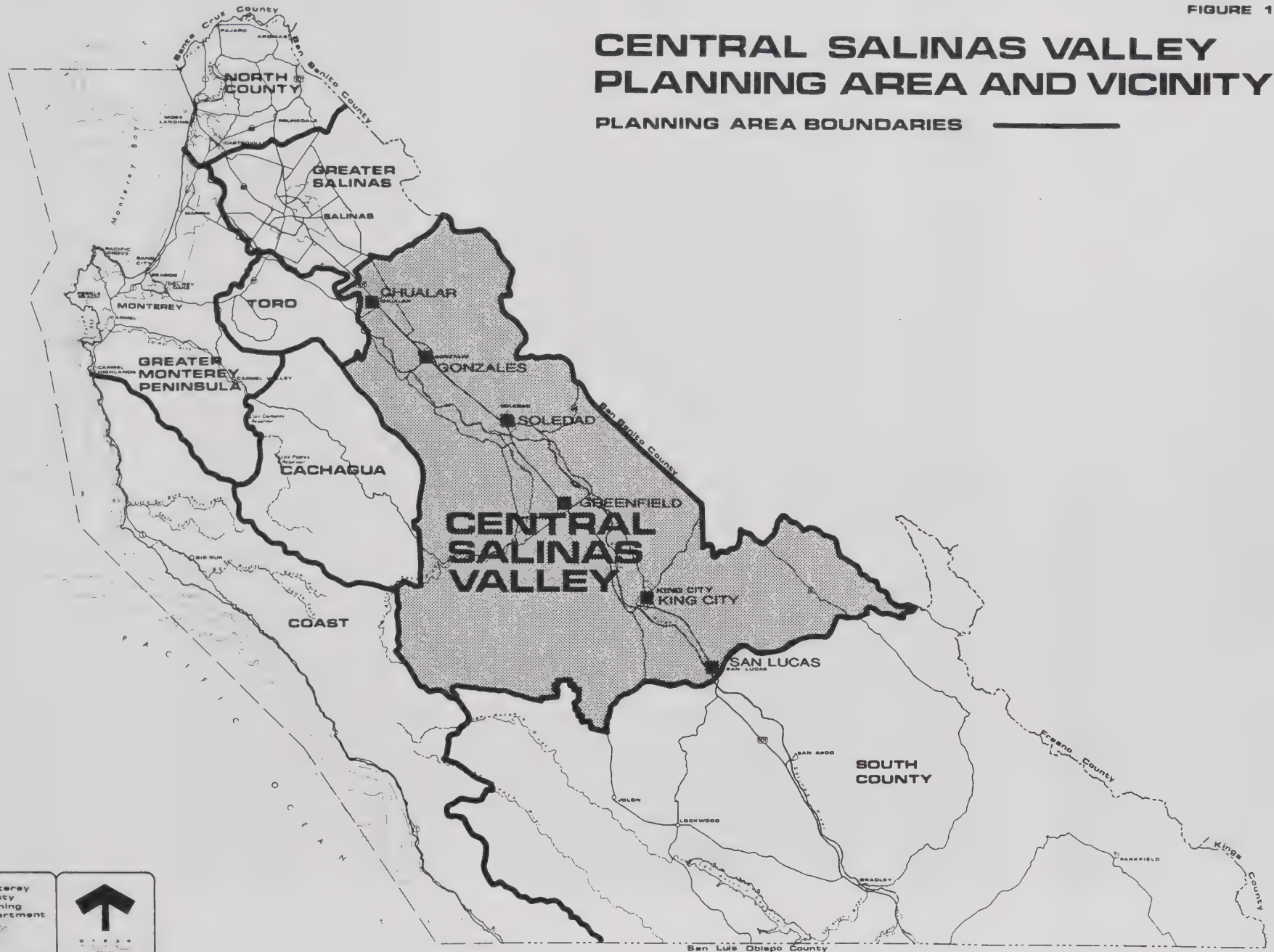
The most prominent feature of the 857 square mile Planning Area is the floor of the Salinas Valley, which is approximately seven miles wide at Chualar, nine miles wide at Greenfield, and four miles wide at King City. The remainder of the Planning Area is mountainous with steep ravines and hillsides with slopes often exceeding 30%. The Gabilan Range forms the eastern wall of the valley, reaching an elevation of 3,000 feet, while the Sierra de Salinas and Santa Lucia Ranges to the west exceed 3,600 and 5,800 feet respectively. Junipero Serra Peak is the highest point in the planning area. Several large canyons accentuate the topography. These, along with the smaller canyons, drain the higher elevations, becoming tributaries to the Salinas River, which flows year-round although primarily below-surface, during the summer months. The Arroyo Seco River joins the Salinas River about midway through the Planning Area. The only major highway through the valley is U.S. 101, which follows the course of the Salinas River. The incorporated cities of Gonzales, Soledad, Greenfield, and King, as well as the unincorporated urban centers of Chualar and San Lucas, are all located along 101. The remainder of the Planning Area is essentially rural and agricultural.

The Central Salinas Valley enjoys a Mediterranean climate with moderate temperatures throughout the year, mild winter rainy seasons, and cool, dry summers. Average annual precipitation varies, ranging from 10 inches at Greenfield and King City to 20 - 25 inches at Pinyon Peak. Between the months of March and October, the prevailing northwest winds funnel directly into the Salinas Valley, carrying the summer fog inland from Monterey Bay. As the wind passes through the narrowing valley, the wind velocity increases and moisture holding capacity decreases. Consequently, this wind is relatively hot and dry in Soledad, and temperatures in the southern valley tend to be warmer in the summer and cooler in the winter than those experienced closer to the coast. During the winter months, prevailing wind will reverse and blow from the south in response to the rainstorms which are typical of the season.

FIGURE 1

CENTRAL SALINAS VALLEY PLANNING AREA AND VICINITY

PLANNING AREA BOUNDARIES —————



GEOLOGY

The Central Salinas Valley is underlain by Mesozoic granitic rocks. In the Sierra de Salinas and Santa Lucia Ranges, this granitic base is still covered by Pre-Cretaceous metamorphic rocks and by middle and lower Miocene marine tertiary formations. In the northern half of the Gabilan Range, most of these ancient marine sedimentary formations have eroded away, leaving the newer granitic strata beneath the soil layers. In the southern portion of the Gabilan Range, the granitic rocks are still primarily covered by middle or lower Pliocene sedimentary formations, from a point roughly east of Greenfield to the southern boundary of the Planning Area. The Salinas Valley floor consists of recent Quaternary alluvium and river terrace deposits, reaching depths of up to several thousand feet in the lower valley. Several active and potentially active faults occur throughout the Planning Area.

MINERAL RESOURCES

The most notable examples of mineral extraction in the Planning Area are the oil fields located at Monroe Swell, south of Greenfield, and King City. Like the Paris Valley and San Ardo fields further south, these fields are located along the geologic feature known as the King City Hinge Line and draw from upper and lower Miocene sedimentary formations. Operating fields are expected to continue producing for at least another 40 years. A considerable amount of "wildcatting," or single exploratory wells, is now occurring in the central valley. Oil companies have long expected to find oil in the Reliz Canyon, Paraiso Canyon, and Gonzales areas. The extraction of other mineral resources in the Planning Area is now limited to a few sand and gravel extraction operations. Historically, bituminous sandstone, diatomite, feldspar, chromate, gold, stone, phosphate, and mineral water have also been mined and quarried throughout the area. The complexity of geology in the County, caused by the extensive faulting and deformation, often makes geologic investigations difficult and inconclusive.

SOILS AND SLOPE

A wide variety of soils are present in the Planning Area. The characteristics of the soils and the slope of the land are significant determinants of appropriate land uses. Certain soils, due to their composition, drainage, and gentle slope, are suited for either agricultural or urban uses. The soils found in the Salinas Valley are some of the better agricultural soils in the nation and help make the Salinas Valley the most productive vegetable district in the world. These soils are also suitable for urban uses. Other soils pose severe limitations to the agricultural or urban uses of the land. Soils found along the rugged eastern slopes of the Sierra de Salinas and along the

western slopes of the Gabilan Mountains have severe limitations. The development suitability of soils found in the Planning Area are divided into three categories based on suitability for septic system effluent absorption, dwellings without basements, and development of roads and streets. Soil constraints considered in determining suitability include slope, depth to bedrock, soil strength, shrink-swell potential, and the presence of water. Categories of soil constraints were rated as low, moderate, and high. Soils in areas with a low constraint rating are generally suited for most land uses and any limitations can be easily overcome. Soils with moderate constraints have properties which render them unfavorable for specified uses, but limitations can be overcome by special planning and design. Areas with soils given a high constraint rating have soil properties which are so unfavorable or difficult to overcome that a major increase in construction effort, special design, or intensive maintenance is required, and development may be unfeasible. Soils exhibiting low constraints are located in the flat valley lowlands near the Salinas and Arroyo Seco Rivers, and Quail, Chualar, and San Lorenzo Creeks. Moderate constraints predominate the floor of the Valley, the slopes of the Gabilan and Sierra de Salinas foothills, and extend up the larger canyons. Areas of severe soil constraints are found in the steep uplands, which constitute the bulk of the Planning Area, and in the immediate area of the river beds.

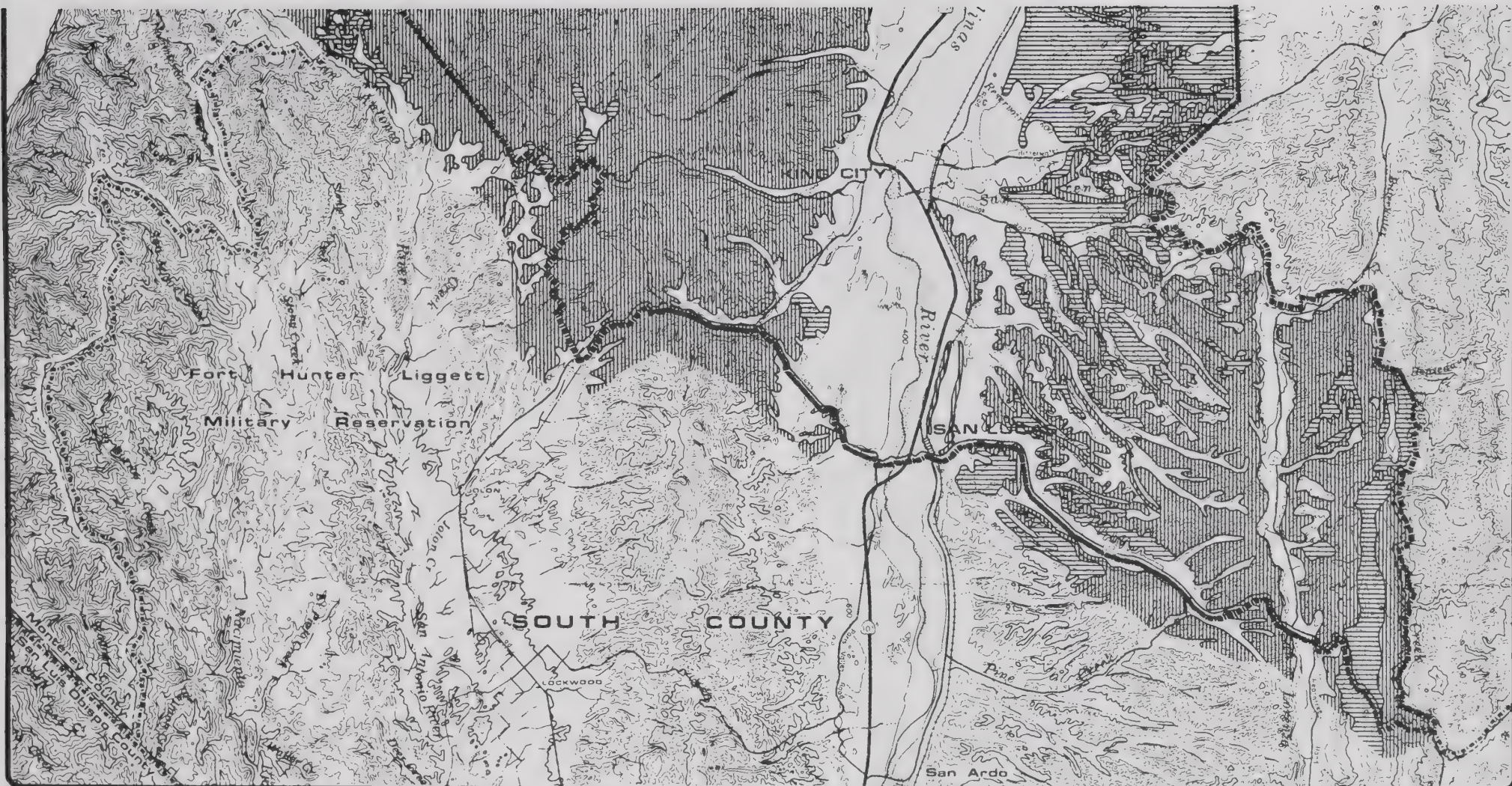
Slope is a significant factor in soil stability, rate of erosion, and runoff velocity. Figure 2 shows slopes in the Planning Area. Generally speaking, areas of low and moderate slopes correspond roughly to areas of low and moderate soil constraints. Likewise, areas with steep slopes, greater than 30%, tend to have high soil constraints for development. Areas having slopes of 30% percent or more are not considered suitable for development and are more appropriate for open space uses such as grazing and watershed.

Farmlands

Farmlands are the most vital resource of the Central Salinas Valley. They are a result of climate, availability of irrigation water, and soils. The U.S.D.A. Soil Conservation Service has developed and implemented a system for categorizing important farmlands for California and the rest of the nation. The Important Farmlands Inventory (IFI) System distinguishes three categories of farmlands, each with specific criteria. The categories are "prime farmlands", "farmlands of statewide importance", and "unique farmlands." Prime farmlands are lands best suited for producing food, feed, forage, fiber and oilseed crops. Farmlands of statewide importance are lands other than prime that have a good combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops.

Additionally, lands must be irrigated to be included in these two categories. The Central Salinas Valley contains about 56% of the prime farmlands and farmlands of statewide importance in the County, or about 108,000 acres of prime soils and 20,400 acres of soils of statewide importance. Unique farmlands are lands other than prime and farmlands of statewide importance that are currently used for the production of specific high value food and fiber crops.





CENTRAL SALINAS VALLEY PLANNING AREA

PLANNING AREA BOUNDARY - - - - -

FIGURE 2

SLOPE



0 - 10%



10 - 30%

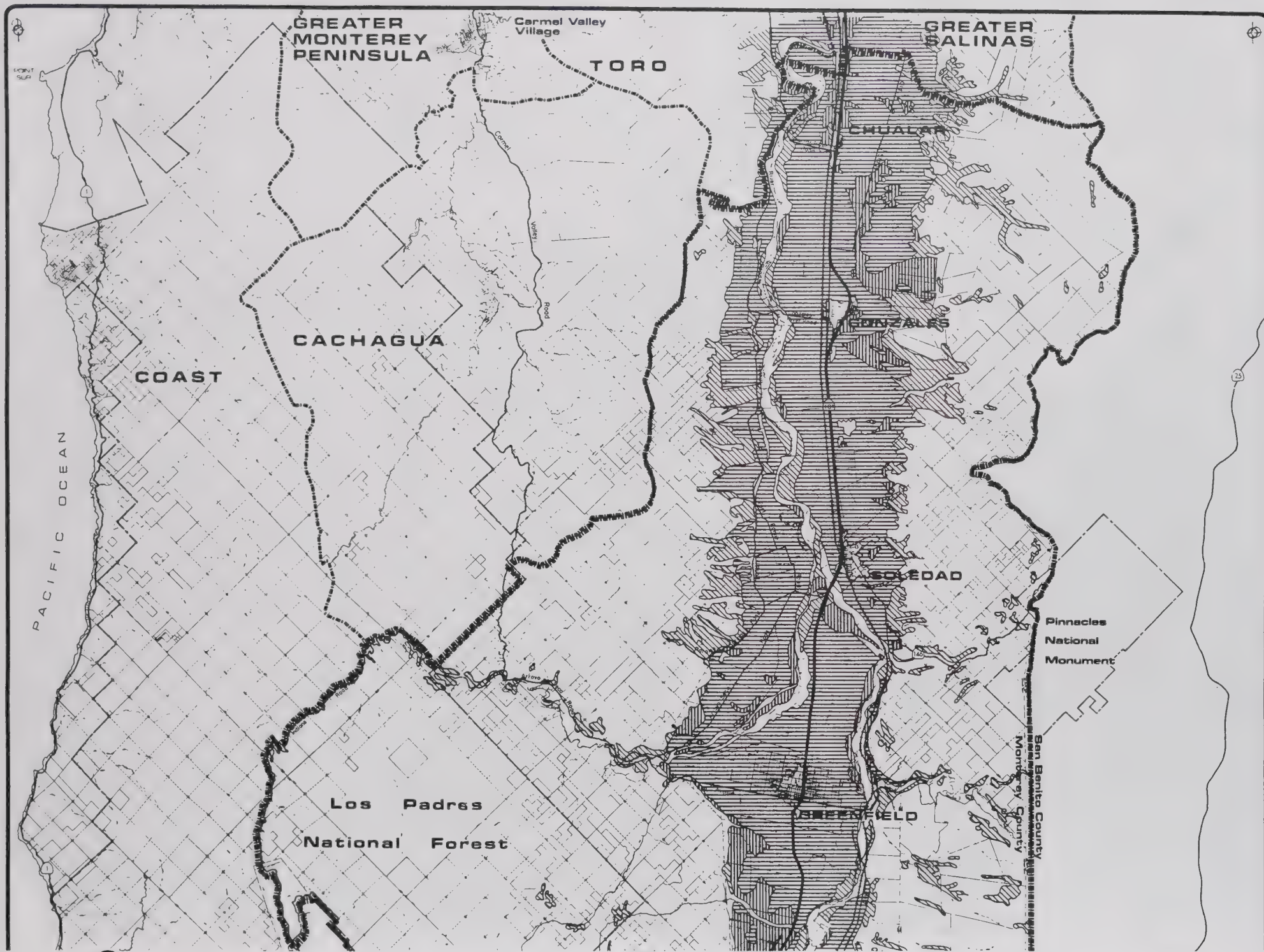


30% OR GREATER



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GREATER
MONTEREY
PENINSULA

Carmel Valley
Village

TORO

GREATER
SALINAS

CHUALAR

GONZALES

SOLEDAD

GREENFIELD

CACHAGUA

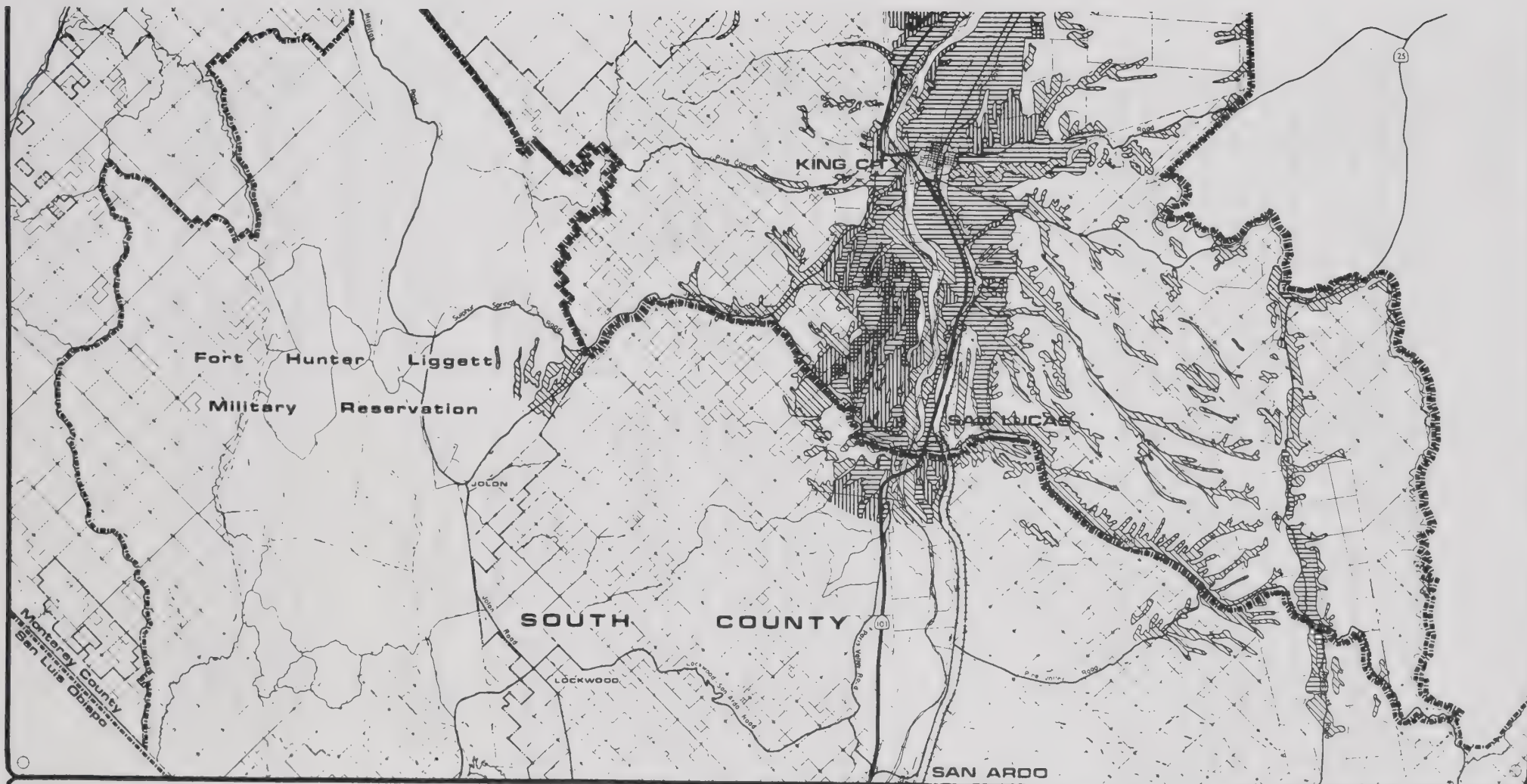
COAST

Los Padres
National Forest

Pinnacles
National
Monument

San Benito County
Monterey County

PACIFIC OCEAN



CENTRAL SALINAS VALLEY PLANNING AREA

PLANNING AREA BOUNDARY

FIGURE 3

IMPORTANT FARMLANDS



PRIME FARMLANDS



UNIQUE FARMLANDS



FARMLANDS OF STATE -
WIDE IMPORTANCE



FARMLANDS OF
LOCAL IMPORTANCE

SOURCE: U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, 1988.



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As shown on Figure 3, most of the Central Salinas Valley floor is classified as important farmlands, with the largest amount of prime farmlands located north of the City of Greenfield. As the local climate and soil conditions vary from one end of the valley to the other, dominant crops also vary. Broccoli and cauliflower are cultivated at the northern end of the valley where the temperatures are cooler. Carrots are grown on the east side of the central portion of the Planning Area, and beans and potatoes are planted in much of the drier south valley. Extensive plantings of wine grapes have replaced pasturage on the lower slopes and terraces of the valley from the Soledad area southward. Due to the development of new seed varieties, lettuce is now planted throughout the Planning Area and is the valley's principal cash crop. In 1981, total cash value resulting from agricultural production in the Planning Area was \$389,000,000. This value amounted to almost 43% of the total county agricultural cash value for that year.

WATER RESOURCES

Rivers and Streams

The surface water of the Central Salinas Valley Planning Area is divided among portions of three major watersheds: the Salinas Valley Basin, the Arroyo Seco Basin, and the San Antonio Basin. All of the watersheds in the Planning Area ultimately drain into the Salinas Valley Basin. The Salinas River has a year-round flow, although during the dry months the river is reduced generally to a subsurface flow regulated extensively by releases from San Antonio and Nacimiento Reservoirs. With the exception of the Arroyo Seco River, all other surface rivers and streams are intermittent, carrying surface flows during the wet winter months yet dry during the summer months. Direct surface flows to the Salinas River occur only at the height of the winter rainy season with the San Lorenzo Creek and the Arroyo Seco River as the main tributaries.

The Paraiso Hot Springs, located on the eastern slope of the Sierra de Salinas foothills about 12 miles northwest of Greenfield, are a unique resource in the Planning Area. The Springs consist of hot, warm, and cold mineral water ideal for drinking, swimming, and taking the cure.

No significant reservoirs are located in the Planning Area, although releases from San Antonio and Nacimiento Reservoirs are timed to recharge the Salinas Valley aquifers.

Groundwater Resources

The water supply for the Central Salinas Valley is almost exclusively derived from groundwater. The existence of groundwater is the result of water percolating into alluvial materials and porous geologic structures. The occurrence of groundwater basins in the Planning Area follows the general pattern of surface water floodplains. The largest groundwater basin in the County, the Salinas Valley Basin, has been divided into subareas for the monitoring of groundwater. The

Planning Area overlays portions of the Upper Valley, Forebay, East Side, and Pressure subareas. Since there are no geologic barriers dividing these subareas, there is free groundwater movement between them. The valley should, therefore, be considered as a single hydrologic unit.

Infiltration in the Salinas River channel is the principal source of groundwater recharge for the Salinas Valley groundwater basin. The recharge area is generally believed to end at a point between Chualar and Salinas. Both natural runoff and conservation releases from Nacimiento and San Antonio Reservoirs contribute to the flow in the Salinas River. Infiltration from other smaller tributaries that drain the highland areas also provide recharge to the groundwater basin. The down-valley movement of this subsurface water is essential to the containment of saltwater intrusion into the Pressure subarea. Higher elevations tend to have little potential for groundwater recharge due to either shallow or non-existent soils and steep slopes. These same characteristics pose problems for septic suitability and limit water availability.

Groundwater consumption in the Planning Area has increased over time as the amount of valley croplands under irrigation has continued to increase annually. Continued residential, commercial and industrial development has also increased groundwater consumption, but with agriculture accounting for at least 90% of the area's water consumption, demand generated by these sources has been relatively small.¹ Agricultural and urban consumers are now using more water than is recharged annually, resulting in a groundwater overdraft.

A recent study estimated that groundwater overdraft in the entire Salinas Valley amounts to about 20,000 acre-feet annually.² Other studies estimate the overdraft to be much larger. The July, 1984, Land and Water Resources - Monterey County report, by the Department of Water Resources (DWR) estimated that the overdraft in 1979 for the four subareas amounted to 58,100 acre-feet. Table 1 shows the 1979 Hydrologic Balance for the four Detailed Analysis Units (DAUs) which correspond to the four sub-basins of the Central Salinas Valley.

1. Monterey Peninsula Water Management District, Water Conservation Plan for Monterey County (1985), p. 71.
2. CHZM Hill, Arroyo Seco Dam Feasibility Study Final Report (1982), p. III 8.

Table 1

1979 HYDROLOGIC BALANCE

Item	Pressure Area (DAU 48*)	East Side (DAU 49**)	Forebay Area (DAU 50)	Upper Valley (DAU 51***)
1979 Water Supply (1000 ac-ft/yr)	207.7	131.9	184.3	163.7
Base Period 1970 - 1975	207.7	129.2	184.5	164.4
Total Net Water Demand (1000 ac-ft/yr)	230.8	144.2	194.4	176.3
Net Change in Total Groundwater Storage	-12.1	-12.3	-10.1	-12.6
Seawater Intrusion	-11.0	0.0	0.0	0.0
Total Net Change in usable Ground- water Storage	-23.1	-12.3	-10.1	-12.6

- * - Shared with Greater Salinas and Toro Planning Areas
- ** - Shared with Greater Salinas Planning Area
- *** - Shared with South County Planning Area

Source: DWR, Land and Water Resources - Monterey County, July 1984.
 AMBAG, Systems Capacity Analysis, Part I, June 1986.

Because water supplies may vary from year to year, the Table also shows the water supply for a base period, which approximates the long-term historical yearly average supply. The Table indicates that 1979 was close to being an average year in terms of supply meaning the overdrafts for that year were not caused by below average water supplies.

The overdraft situation is exacerbated as agricultural and urban water demand increases. According to DWR projections, agricultural and urban uses will increase water demand by 27,000 acre-feet by the year 2000.³

In the East Side area, where there is little natural recharge of the groundwater basin, pumping lowers the groundwater levels and causes large sub-surface flows to the East Side area from the Pressure area. This combined with excessive pumping in the Pressure area has lowered the groundwater table below sea level near the coast allowing seawater to intrude into that portion of the Pressure sub-basin.

Sustained overdrafting may result in irreversible detrimental effects to the basin in addition to seawater intrusion. Other effects include increases in total dissolved solids, nitrate build-up, higher pumping costs, and land subsidence.

Future Supplies

It is evident that additional supplies of water will be necessary if irrigation and development are to increase in the Central Salinas Valley. Urban water conservation is not expected to be a significant factor in water supply as per capita water uses in the Planning Area are already quite low.⁴ Several water projects that would affect the Central Salinas Valley have been discussed.

A major reservoir on the Arroyo Seco River has been proposed since the 1930s, although its exact location has yet to be determined. The yield from such a project could range from 40,000 to 90,000 acre-feet annually. Releases from this reservoir would join releases from Nacimiento and San Antonio reservoirs in the Salinas River. Widespread support for this project has been lacking in the past, however, as groundwater overdrafts and water quality problems in the Salinas Valley become more serious, construction of the dam may become more feasible.

A surface water canal delivery system to supply agricultural water needs in the overdrafted East Side area has also been discussed. Decreasing East Side overdrafts would decrease the subsurface flow from the Pressure area to the East Side area, reducing both the water loss and saltwater intrusion in the Pressure area. The possibility of an East Side project is remote without the construction of an additional water supply such as the Arroyo Seco Dam. Ground water from the Arroyo Seco Cone area has been proposed as another possible water source for this project.

3. Department of Water Resources, Land and Water Resources - Monterey County (July, 1984), pp. 8 & 16.

4. Ibid, p. 7.

Wastewater reclamation and treatment of imported surface flows in the Central Salinas Valley have not been proposed, but could become economically feasible at some time in the future.

VEGETATION

The Central Salinas Valley contains four major plant communities common to the South Coast Mountain Range: foothill woodland, chaparral, riparian woodland, and grassland. The foothill woodlands are found in the more protected areas including the canyons, coastal terraces, and sheltered valleys. Trees in this community include coast live oak, buckeye, madrone, and California bay laurel with an understory of herbs, grasses, and small shrubs such as toyon, coffeeberry, and poison oak. The foothill woodland community supports an abundance of wildlife. Chaparral communities are composed of a uniform covering of hardy evergreen shrubs forming dense, impenetrable thickets. Chaparral may be found on dry slopes and on slopes with rocky or infertile soil. Chaparral species common in the Planning Area include chamise, manzanita, coast live oak, interior live oak, toyon leather oak, and knobcone pine.

Riparian woodland is found along seasonally and permanently flowing freshwater streams and also in canyon bottoms and other drainage features where conditions are wet enough to support it. Dense stands of trees and a thick understory of shrubs are often present. Wildlife tends to be particularly abundant here. Fresh water, which is a limited resource during summers in the Planning Area, can usually be found here as well as a diversity of habitats for fauna. Characteristic trees include black cottonwood, white alder, box elder, California sycamore, California buckeye, California bay tree and willows. Common shrubs include California wild rose, wild blackberry, snowberry and mugwort. Riparian corridors may extend through other plant communities forming long linear tracts of similar vegetative resources. Grasslands in the Planning Area are declining due to increased urbanization and agricultural uses. They are, therefore, generally located where soils and topography prohibit cultivation. Existing grassland was created in large part through burning practices of the early American Indians and agricultural practices of the white settlers. Many of today's annual grasses such as rye, wild oats, brome grass, meadow fescue, needle grass, bluegrass, and blue bunch grass were introduced by white settlers. Native bunch grasses are still found in a few remote locations or among the non-native grass species. Grassland often contains native herbaceous plants such as lupine, clarkia, clover, storksbill, bird's foot trefoil, and owl's clover. Two rare and endangered plant species, Arroyo Seco Bush Mallow and Hickman's Checker Mallow, occur in the Arroyo Seco watershed above the "Pools" site near Indians Road.

WILDLIFE

Wildlife in the Central Salinas Valley is diverse and abundant despite the intense cultivation of the valley floor. Throughout the natural and cultivated areas, small mammals, reptiles, and birds

typical of central California are found in fairly consistent populations. Wildlife in riparian areas is even more abundant. Larger predators tend to avoid urbanized and cultivated areas, and they are trapped and hunted in the grasslands. Nevertheless, significant populations of mountain lion, bobcat, and coyote are thought to inhabit the mountainous areas of the Planning Area. Wild boar are a popular game animal on the eastern slopes of the Valley. Raptors are also represented by large populations of red-tailed hawk, turkey vulture, and several owl species. Golden eagles are less frequent but known to occur. The San Joaquin kit fox is also known to occur in the eastern and southern portions of the Planning Area and has been classified as a rare species. Continued grazing and watershed use of the grasslands and brushland hills appears to protect this species, but it has been geographically cut off from the rest of the state population, preventing genetic mixing. Southern bald eagles occur in the valley during migration in the winter, and Peregrine falcons have been sighted near the Pinnacles area. Both of these species are currently endangered and efforts are underway to restore populations of both raptors to non-endangered status.

ENVIRONMENTALLY SENSITIVE AREAS

Although several rare or endangered species of plants and animals have been identified in the Planning Area, all the ecosystems in the Central Salinas Valley have yet to be surveyed. Consequently, specific "environmentally sensitive areas" have not been identified. Various public and private organizations such as the California Native Plant Society, the California Department of Fish and Game, the California Natural Areas Coordinating Council, the Heritage Conservation and Recreation Service, and the California State Water Resources Control Board have programs that identify both natural areas and rare and endangered flora and fauna. The inventories developed by these organizations can serve as the initial step in preserving these areas and the plant and animal species dependent upon them. The State Department of Fish and Game considers all riparian habitats in the County to be Areas of Special Biological Importance (ASBI). Areas of Special Biological Importance are those areas determined by the Department of Fish and Game (DFG) to be of special importance to one or more kinds of wildlife and are thus considered by the DFG to be particularly sensitive to development. Special consideration should be given to ASBI if wildlife dependent upon these areas is to thrive. Designation of an area as an ASBI is intended to serve as an "early warning" so that potential adverse impacts on ASBI from land use changes can be reduced or avoided. These areas should be the first to be designated as environmentally sensitive areas. The ecological vitality, as well as the practical value of environmentally sensitive areas for sport and recreation, provide sufficient incentive for their long term preservation.

ARCHAEOLOGICAL RESOURCES

The history of the Central Salinas Valley has been traced at least 6,000 years, and perhaps as much as 10,000 years prior to the Spanish colonization of Monterey County. Evidence of the

original Native Indian civilizations is scarce, but the locations of some village sites are known. More evidence of the introduction of European culture exists in the valley. The trails of Portola, Father Junipero Serra, and Juan Bautista De Anza all pass through the Planning Area. These resources provide a source of heritage and identity for present and future residents.

Less than 5% of the total land area of Monterey County has been surveyed for archaeologic importance. However, nearly 1,100 new sites have been identified. Based on this research, the County has established criteria and guidelines for reviewing proposed development during the initial environmental review. Additional professional studies may be required for any project on a site where there is a high probability of archaeologically significant resources.

Using available information and applying the various topographic characteristics most often associated with such sites, the County has delineated archaeological sensitivity zones. Three zones, low, moderate, and high, have been established to indicate the probability of an archaeological site in a given location. Zones of high sensitivity are found along the southern reaches of the Sierra de Salinas, in Pine Canyon, and along Highway 25. The valley area has a low sensitivity because, after being intensively farmed, any archaeological sites which may have existed were probably destroyed long ago.

HISTORIC SITES

The Central Salinas Valley contains many vestiges of California's early settlement by non-indigenous peoples. Figure 4 shows the location, and Table 2 provides a listing of historic sites, existing structures, and natural land features in the Planning Area which have survived from either the Spanish Colonial, Mexican, American settlement, or early 20th century periods of local history. Only those structures in the unincorporated portions of the Planning Area are shown. Of these, the Soledad Mission and Richardson Adobe are historic sites of statewide significance. Figure 4 and Table 2 identify nine historic sites, including the sites of three historic adobes, which are no longer in existence. Of special interest in Table 2 are the Indian rock shelters, painted caves, and Pinnacles National Monument. Figure 4 also shows historic routes through the Planning Area taken by early explorers and Spanish missionaries.

SCENIC RESOURCES

The Central Valley contains many areas of natural scenic beauty and rustic charm. Figure 5, Visual Sensitivity, identifies scenic resources within the Planning Area which, because of their scenic value or unusual physical features should either be conserved or protected. Many of these areas are also of historic and cultural significance. Scenic resources include but are not limited to: majestic mountain ranges, rolling hills, forested or wooded areas, meadows, steep slopes and valleys, unusual geologic formations, large or unique water bodies, vista points, scenic trails,

GREATER
MONTEREY
PENINSULA

Carmel Valley Village
PORTOLA'S TRAIL 1769-1770

TORO
JUAN BAUTISTA DE
ANZA NATIONAL
HISTORICAL TRAIL

GREATER
SALINAS
STAGE COACH ROUTE

CHUALAR

16-20

CACHAGUA

COAST

ONZALES

SOLEDAD

Pinnacles
National
Monument

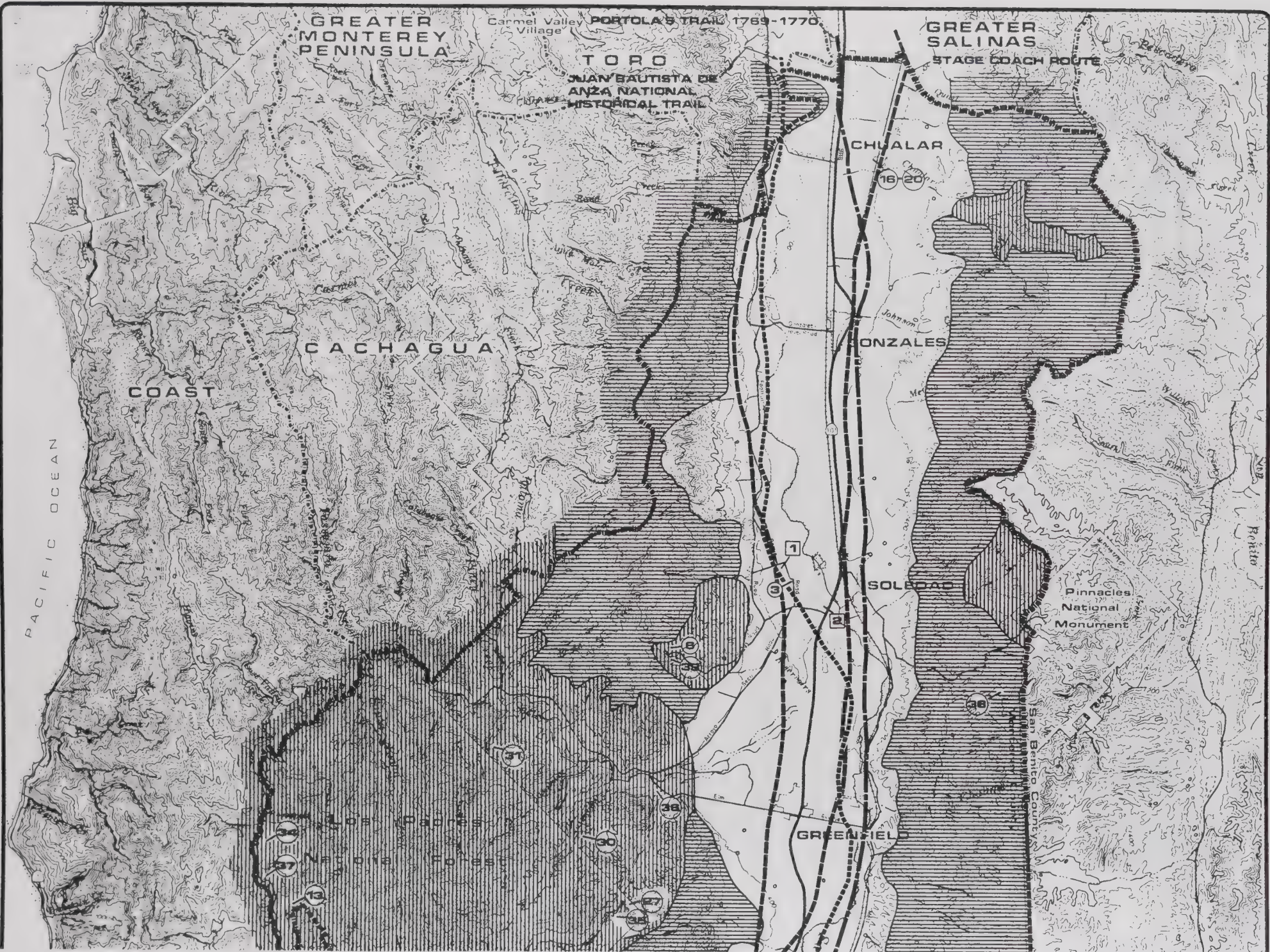
GREENFIELD

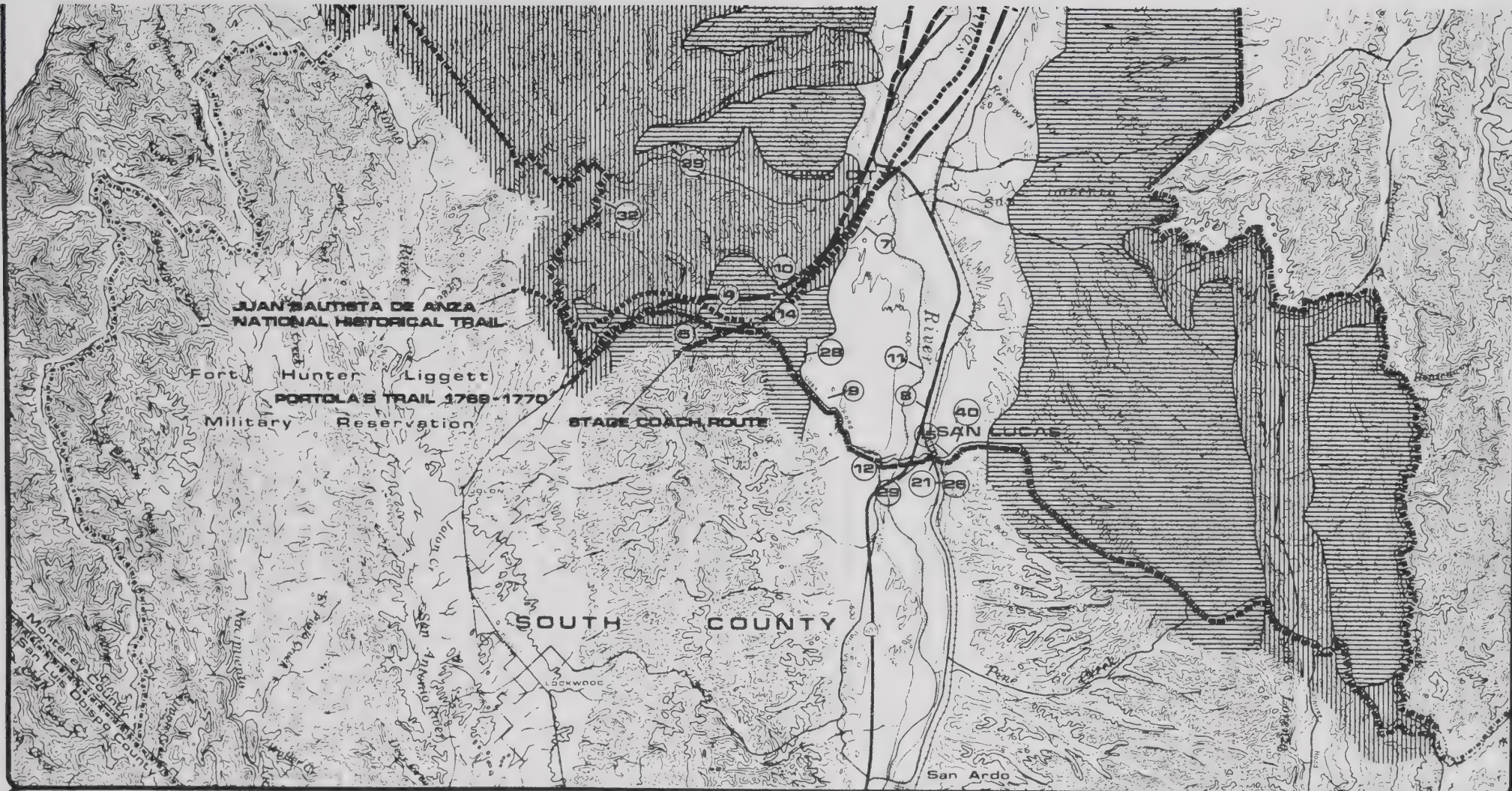
Los Padres

National Forest

San Benito County

PACIFIC OCEAN





CENTRAL SALINAS VALLEY PLANNING AREA


PLANNING AREA BOUNDARY 

FIGURE 4

CULTURAL RESOURCES

ARCHAEOLOGICAL SENSITIVITY ZONES



LOW



MODERATE



HIGH

HISTORICAL SITE



STATEWIDE
SIGNIFICANCE



LOCAL
SIGNIFICANCE

NOTE: NUMBERS REFER TO HISTORIC SITES (TABLE B).

SOURCE: GARY BRESCHINI, CONSULTING ARCHAEOLOGIST; MONTEREY COUNTY PLANNING DEPARTMENT, 1983.



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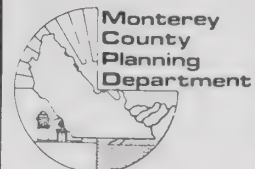


TABLE 2
HISTORIC SITES

Map Number	Site	Date	Location	Comment
Historic Sites of Statewide Significance				
1	Soledad Mission	1791	Fort Romie Road	Partially reconstructed
2	Richardson Adobe	1843	Paraiso Road	Good condition; State Historical Landmark
Historic Site of Local Significance				
3	Fort Romie	1890	River Road and Fort Romie Road	No structures remaining
4	Love's Cemetery	Mid-1800's	Jolon-King City Road	Across road from stage stop
5				
6	Paraiso Springs Resort	--	Paraiso Springs Road	Still in use
7	San Bernabe Rancho	1840's	Jolon-King City Road	Adobe gone; was stage stop
8	Rancho San Benito	1843	Northwest of San Lucas, on Salinas River	Adobe Adobe in ruins
9	Rancho San Benito Adobe Corral	1822	East of junction of San Luis-Lockwood and Oasis Roads	Built by Mission labor; Adobe in ruins
10	Site of Gamboa Adobe	--	South of King City & North of Cherry Canyon on Jolon Road	Adobe gone; prominent local pioneer family
11	Francisco Garcia Adobe	1842	San Bernabe Vineyard; (Originally 2 story built by F. Garcia)	Adobe in ruins
12	Mission Corral	1822	North of Oasis Road, west of Salinas River; Built by Father Pedro Cabot & Mission Neophytes from Mission San Antonio	Adobe in ruins
Structures of Architectural Significance				
13	"The Indians" adobe	Mid-1800's	Milpitas Road	Settled by Mission Indians after secularization; adobe incorporated into present house
14	Adobe Inn/Dunn Adobe	1864	Jolon-King City Road	Stage stop; fair condition
15	Trescony Ranch and adobe barn	Mid-1800's	San Lucas	Still in use
16	Peel House	1900+	Chualar	Good Condition
17	Pruitt House	1890	Chualar	Good Condition
18	Danish Community Church	1900+	Chualar	Moved, now a residence
19	Enevoldsen House	1900+	Chualar	Good Condition
20	O'Neill House	1902	Chualar	Good Condition
21	Cowley Place	1875	San Lucas	Good Condition
22	(San Lucas) Church St. Luke's	1903	San Lucas	Good Condition
23	Arner Place	1890+	San Lucas	Good Condition
24	Bessley Place	1885	San Lucas	Good Condition
25	Bunte Store	1886	San Lucas	Second story removed; still in use; originally Goldwaters
26	Boyd House	1890	San Lucas	Originally a restaurant; converted to residence 1900+
27	Antonio Boronda Adobe	Pre-1870	Reliz Canyon	Ruins; walls standing
28	Jolon Road Grainery	1890	Jolon Road	Good Condition
29	San Lucas Schools	1930's	San Lucas WPA Project; Architect Robert Stanton	Still in use
30	Indian tar seep and archaeological site		Vequeros Canyon	
31	Indian rock shelters and archaeological site		Horse Canyon	
32	Indian painted cave and		Oat Mills	
33	Paraiso Springs Archaeological Site		Paraiso Springs	
34	Archaeological Site		Milpitas Road	
35	Archaeological Site		Reliz Canyon	
36	Archaeological Site		Greenfield-Arroyo Seco Road	
Natural Land Features of Local Significance				
37	"The Indians" Rock		South of Junipero Serra Park	Massive rock features
38	"The Pinnacles"		Highway 148, at San Benito County Line	National Monument; rock formations; outlaw hideout
39	"Robber's Roost"		Pine Canyon	Rock formations; hideout
40	Fossil shells		Highway 199 at Freeman Flat Road	Exposed marine fossil-bearing strata

Source: Monterey County Planning Department, 1983.

roads, and highways. Visually sensitive areas are those scenic resources visible from existing, proposed, or potential scenic routes. Criteria for visual sensitivity include duration of view, degree of variety involved, and uniqueness of view. Sensitive areas contain scenic resources which have local or area significance.

Visually sensitive areas of the Central Salinas Valley include the foothills of the Gabilan and Sierra de Salinas Mountains, Pine Canyon, Chualar Canyon, Arroyo Seco watershed, and the Salinas Valley floor. Areas identified as highly sensitive are those possessing scenic resources which are most unique and which have regional or countywide significance. The highly sensitive areas in Figure 5 are so designated because the prominence of the ridgelines and frontal slopes with their unique vegetation are important in giving the Planning Area its rural character. Other highly sensitive areas are found along the Arroyo Seco River.





CHAPTER II: ENVIRONMENTAL CONSTRAINTS

The environmental constraints analysis identifies conditions and hazards that threaten people and property. The analysis identifies hazard prone or sensitive areas that may or may not be occupied by people. The term "constraints" implies that because of the possible negative effects of development in the specific hazardous areas, land uses must be critically analyzed and, where necessary, restricted. Environmental constraints include seismic, geologic, fire, flood, noise, and miscellaneous hazards as well as air and water quality.

SEISMIC AND GEOLOGIC HAZARDS

The Central Salinas Valley is bordered on the east side by the San Andreas Fault, which forms the boundary between two of the world's largest tectonic plates. Because of the likelihood of an earthquake along its length, the San Andreas has been classified as an "active" fault as per the Alquist-Priolo Special Studies Zones Act of 1972. The state classification mandates that seismic surveys be conducted for any project located within 1/8 mile of the observed fault trace. Many faults not classified as "active" by the Alquist-Priolo Act are still considered by geologists to be active and capable of inflicting severe loss of life and property. Several potentially active faults occur in the Planning Area (see Table 3). The San Fernando earthquake of 1971 in Southern California is an example of an "inactive fault" causing tremendous damage and destruction. Many of the documented faults in the Planning Area are considered to be part of the San Andreas Fault complex. Figure 6 illustrates the extent of this fault complex and shows that the Reliz Fault System bisects the Planning Area, running roughly parallel to the San Andreas Fault Zone.

Table 3

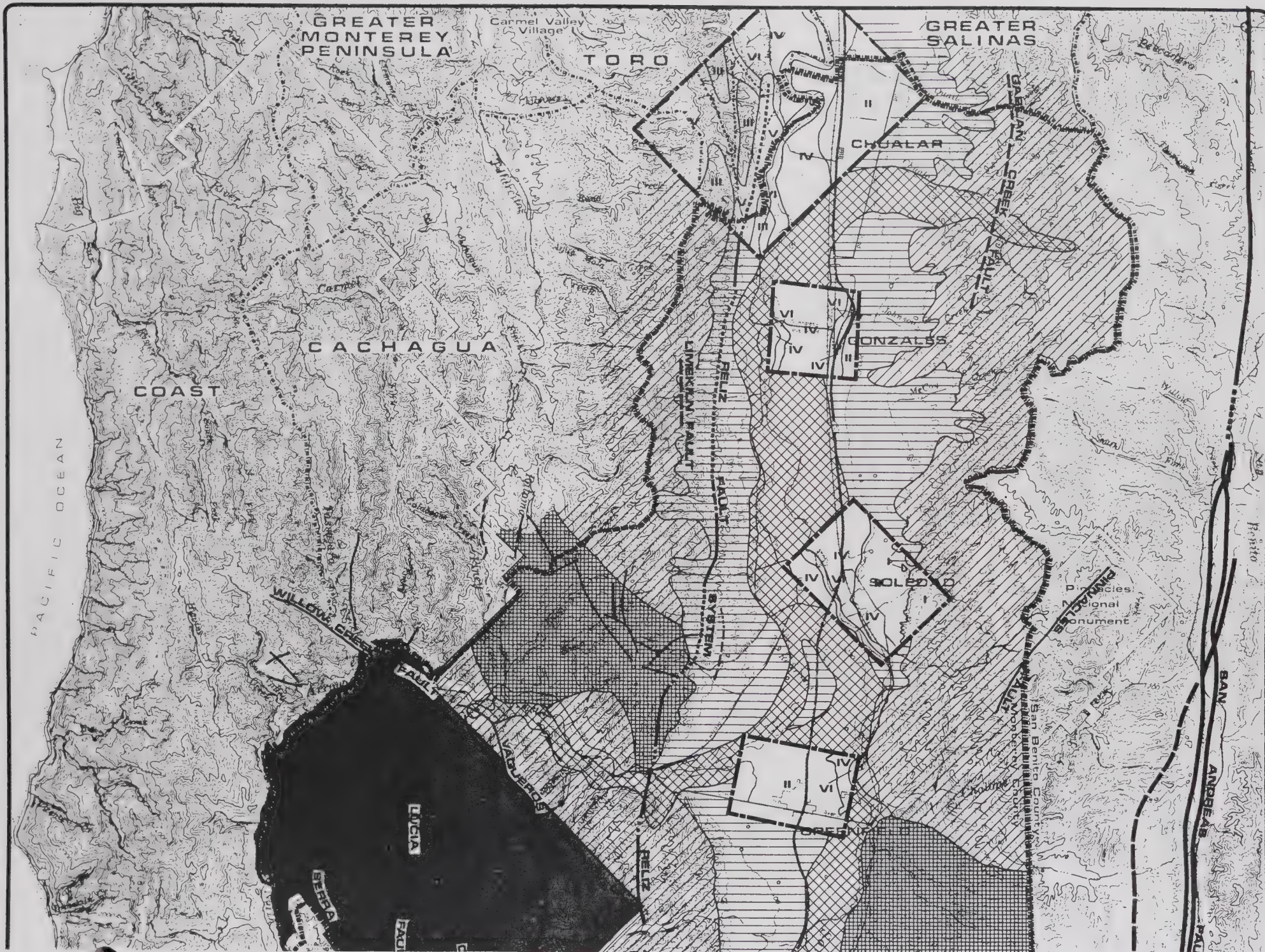
EARTHQUAKE FAULTS IN THE CENTRAL SALINAS VALLEY

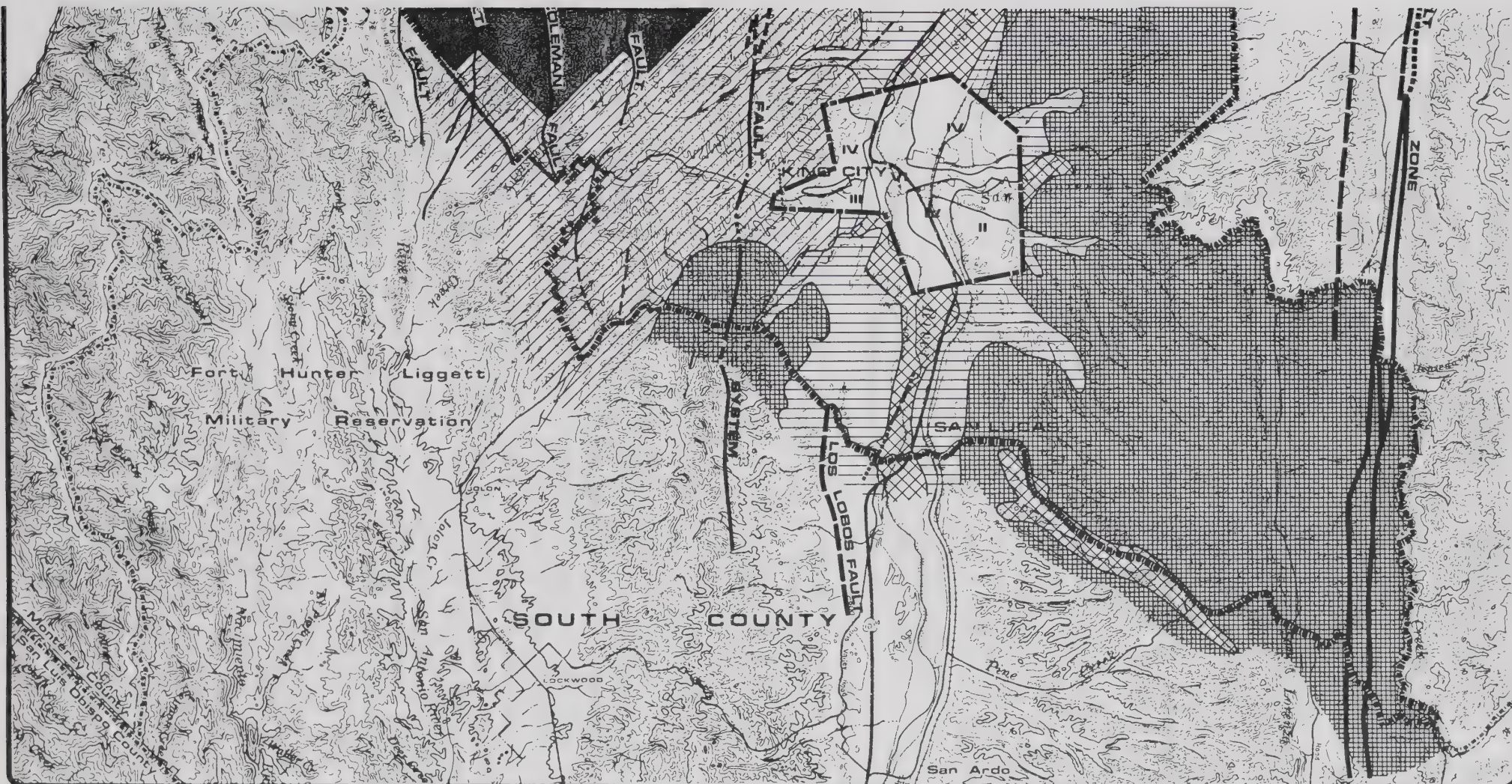
<u>Fault</u>	<u>Active</u>	<u>Potentially Active</u>
San Andreas	X	
Gabilan Creek		X
Reliz Fault System		X
Limekiln		X
Los Lobos		X

Source: Burkland & Associates Monterey County Seismic Safety Element, 1975.

The Limekiln Fault west of Chualar appears to be a splinter of the Reliz Fault System. The Gabilan Creek Fault located in the foothills east of Chualar, as well as the Los Lobos Fault at the southern boundary of the Planning Area, also parallel the San Andreas Fault. Of these, the Reliz Fault System is believed most capable of inflicting significant damage.

The Central Salinas Valley has been the epicenter of four major earthquakes in the recent past (Table 4) yet the San Andreas Fault remains the most significant seismic hazard. A major earthquake on the San Andreas Fault could cause severe groundshaking, partial or complete destruction of structures, and human casualties. This is based on the 1906, San Francisco Earthquake, rated at 8.3 Richter with an epicenter more than 100 miles away.



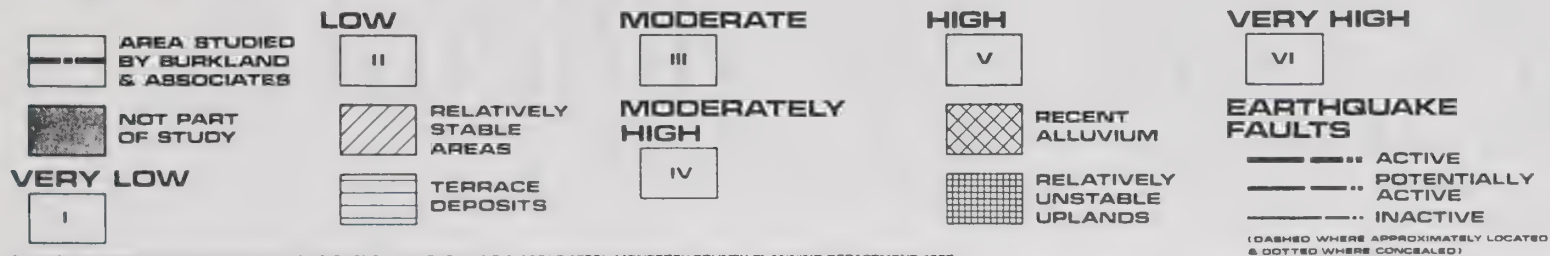


CENTRAL SALINAS VALLEY PLANNING AREA

PLANNING AREA BOUNDARY

FIGURE 6

SEISMIC HAZARDS



SOURCE: MONTEREY COUNTY SEISMIC SAFETY ELEMENT, 1975 (BURKLAND & ASSOCIATES); MONTEREY COUNTY PLANNING DEPARTMENT, 1983.



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It is generally believed that the San Andreas is capable of producing an earthquake up to 8.5 Richter, with an epicenter considerably less distant than San Francisco. Given the 50-125 year recurrence interval for a major quake along this fault, seismic hazards on the floor of the valley are considerable.

Table 4

RECENT SEISMIC HISTORY OF CENTRAL SALINAS VALLEY

Date	Locality	Area Felt (sq. miles)	Estimated Intensity Modified Mercalli
July 23, 1956	N.W. of King City	4,000	V
Sept. 30, 1958	S.E. of Soledad		IV
Nov. 17, 1969	Pine Canyon	4,000	V
Nov. 18, 1969	Pine Canyon	3,500	V

Notes: Mercalli Scale Definitions:

- IV - Felt by many who are indoors, felt by a few outdoors. At night, some awakened. Dishes, windows, and doors rattle.
- V - Felt by nearly everyone, many awakened. Some dishes and windows broken. Unstable objects overturned.

Source: U.S. Department of Commerce, Earthquake History of the United States, 1973.

A major earthquake in the Central Salinas Valley could also trigger liquefaction and landslides of susceptible soils. Liquefaction is the loss of soil strength due to seismic forces acting on water-saturated granular soil. It is a common result of earthquakes in areas underlain by saturated, unconsolidated deposits such as those found along floodplains and river terraces. Within the Planning Area, liquefaction and ground failure potential are severe in the immediate area of the Salinas and Arroyo Seco Rivers. During the 1906 earthquake, liquefaction occurred on both sides of the Salinas River from the Monterey Bay to a point between Gonzales and Soledad. The Central Salinas Valley is relatively free of major landslides. Most known slides occur along the trace of the San Andreas Fault and western side of the valley. Landslide potential is greatest along the Sierra de Salinas Range and the southern portion of the Gabilan Range, north and east of King City.

A seismic event such as an earthquake could also trigger the failure of Nacimiento or San Antonio dams causing a flood of major proportions. Most of the area inundated would be along Highway 101.

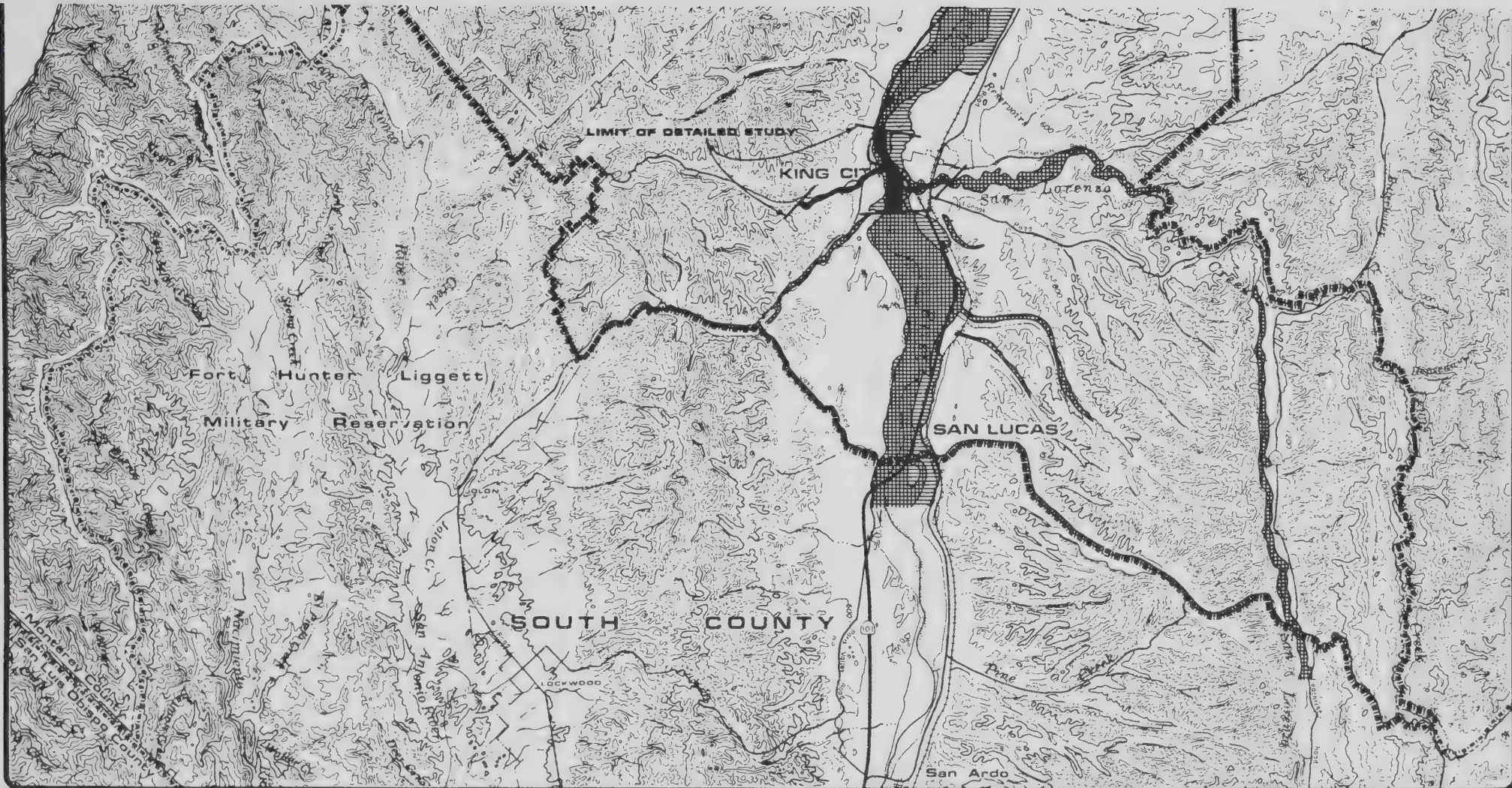
FLOOD HAZARDS

The major cause of flooding in the Planning Area is surface runoff caused when storms of high intensity and long duration exceed the soil's capacity to absorb water. Since 90% of the rainfall occurs between November and April, flooding is a seasonal hazard which is greatest during an intense or prolonged storm. The Central Salinas Valley has a history of repeated flooding during the years 1911, 1914, 1932, 1941, 1942, 1950, 1966, 1978, 1983, and 1986. The flood-prone valley floor developed in spite of the hazard, aided by the construction of Nacimiento and San Antonio dams in 1957 and 1965, respectively, and the Bryant Canyon Bypass Ditch in 1970, which have reduced the flood hazard. Large areas of the valley floor and the canyon bottoms remain designated as flood prone by the federal government which qualifies designated property for flood insurance under the Federal Flood Insurance Protection Act. These flood prone areas are illustrated in Figure 7 as the 100 year floodplain. All new construction in this flood zone must have flood insurance currently available at federally subsidized rates. In addition, County Ordinance 2966 requires stringent design requirements for new structures in the floodzone, including the requirement that a structure's first occupied floor be above the 100 year flood level. As the map indicates, large areas of the valley, including agricultural and urban areas, could be affected by a flood.

Damage to agricultural land could also result from the failure of private-agricultural earthen levees along the Salinas River. These levees are constantly subjected to the weathering forces of nature as well as seismic activity. Levee failure could cause a loss of farmland, but is not considered a threat to developed areas. The sewage treatment plant in Soledad could be flooded by levee failure resulting in possible health hazards.

Another source of potential flooding is failure of San Antonio and Nacimiento dams which could inundate much of the valley floor. Figure 7 also shows the probable extent of a major dam inundation. The most probable cause of dam inundation is seismic activity. It should, however, be understood that the flood map shows water depths of 6 inches or more, and that structural damage or casualties will not necessarily occur within all areas inundated by dam failure. It is assumed that the City of Greenfield and the adjacent vicinity would be significantly affected in the event of a total failure of the proposed project.





CENTRAL SALINAS VALLEY PLANNING AREA

PLANNING AREA BOUNDARY

FIGURE 7

FLOOD PRONE AREAS



AREA OF DAM
INUNDATION



100-YEAR
FLOODPLAIN



FLOODWAY

- NOTES: 1. THE 100-YEAR FLOODPLAIN IS COMPRISED OF THE 100-YEAR FLOODWAY AND FLOODWAY FRINGE AREAS.
2. FLOODWAY FRINGES AND FLOODWAY BOUNDARIES ARE THE SAME UNLESS SHOWN OTHERWISE.
3. THE NOLTE FLOOD INSURANCE STUDY, WHILE GENERALLY ACCEPTED AS ACCURATE, HAS NOT YET BEEN ADOPTED FOR FEDERAL FLOOD INSURANCE PURPOSES AND MUST THEREFORE BE VIEWED AS PRELIMINARY AND UNOFFICIAL.
4. FLOODPLAINS SHOWN OUTSIDE DETAILED STUDY AREAS SHOW LESS DETAILED INFORMATION, BUT HAVE BEEN OFFICIALLY ACCEPTED.
5. CONSULT FLOOD CONTROL FOR MORE DETAIL REGARDING FLOODPLAIN INUNDATION.

SOURCE: FLOOD INSURANCE STUDY, MONTEREY COUNTY, GEORGE S. NOLTE & ASSOCIATES, SEPT. 1960; FEDERAL EMERGENCY MANAGEMENT AGENCY; MONTEREY COUNTY PLANNING DEPARTMENT, AUG. 1962.



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FIRE HAZARDS

Wildland fires are a major hazard in many areas of the Central Salinas Valley. The principal elements of wildland fires are topography, climate, and fuel loading. The elements are combined in the foothill and canyon areas and constitute a very high fire hazard. These foothills and canyons are covered with easily ignitable grassland and flammable chaparral or woodland plant communities. Under the hot, dry, windy conditions of summer and fall, this vegetation becomes highly combustible. Figure 8 shows the relative wildland fire hazard for the Planning Area. Expanding residential development into these areas can literally add fuel to the fire. Development into areas such as Pine Canyon, Chualar Canyon, and Arroyo Seco represents increased fire hazard unless mitigated by adequate fire safety provisions. The valley floor poses a negligible wildland fire hazard because of the altered state of the landscape, now characterized by irrigated agriculture and urban areas.

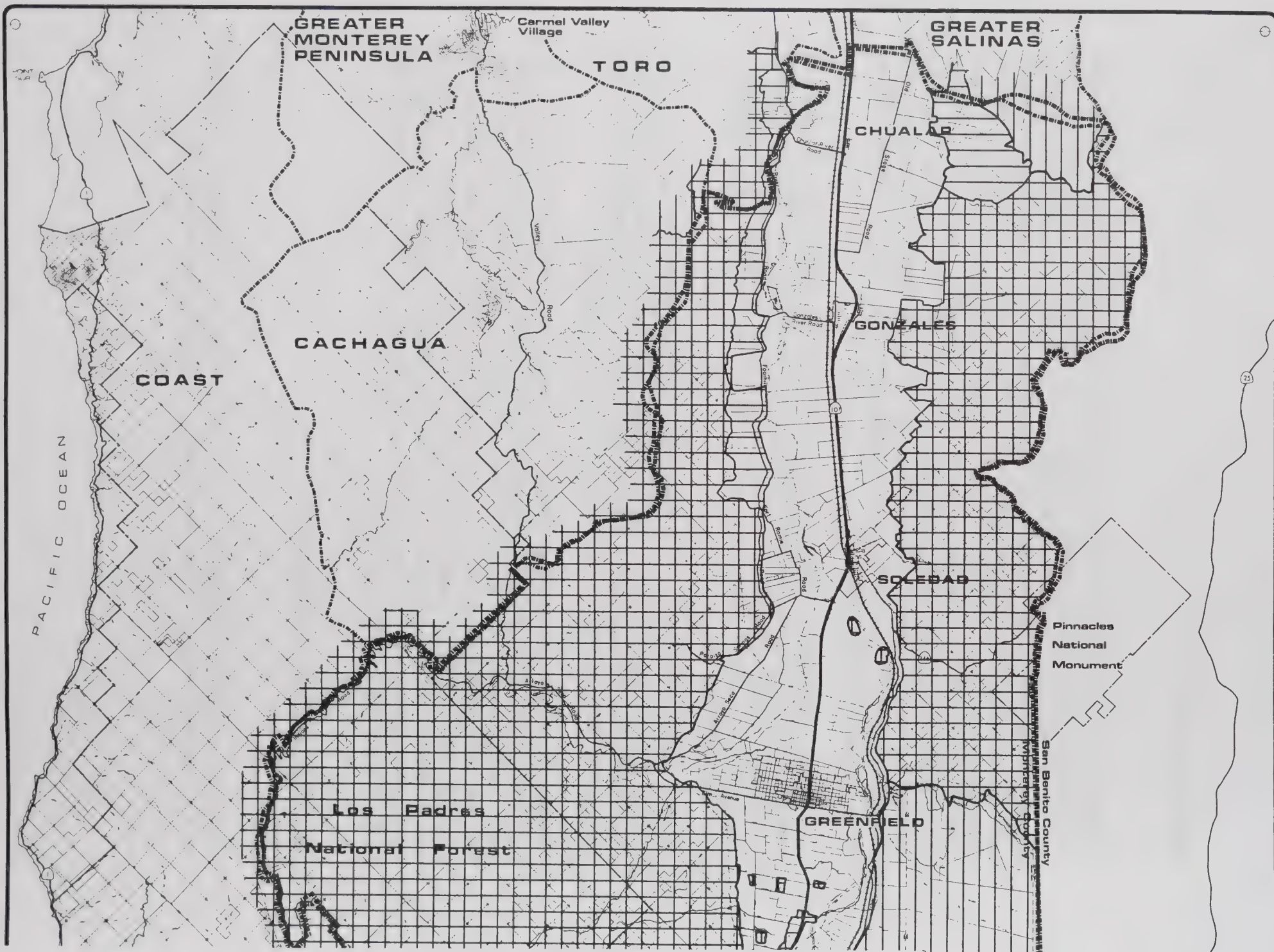
In addition to wildland and structural fires, there are several sites in the Central Salinas Valley subject to fire hazards from oil and natural gas fields and from flammable chemicals. Figure 8 illustrates the locations of very high fire hazard associated with combustible materials sites and chemical storage facilities. These areas appear as islands of very high hazard surrounded by lands with less fire hazard.

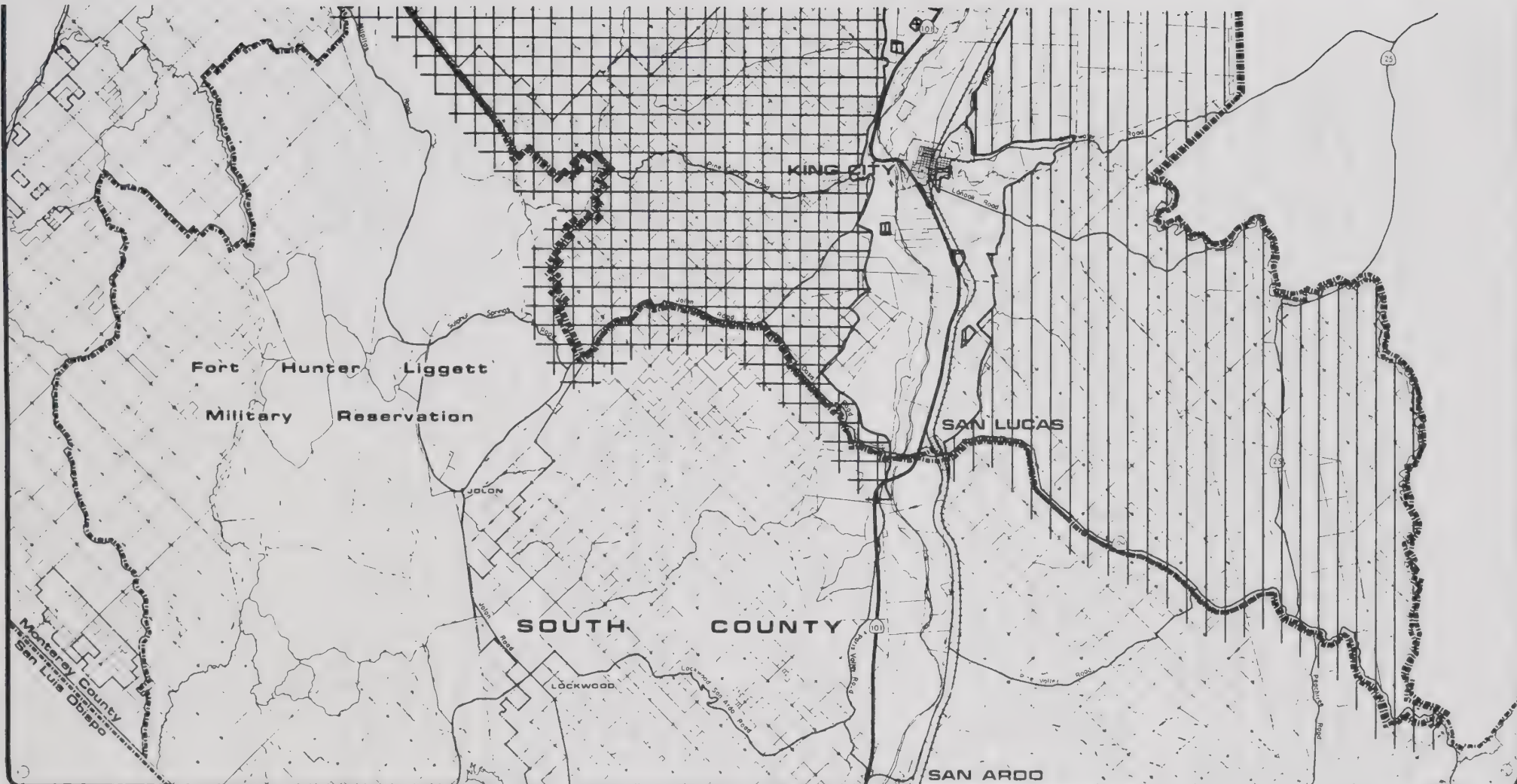
Chemical fires present a complex risk. They may precipitate an explosion, send toxic fumes skyward, or result in chemicals being washed into groundwater systems. Because of the extreme risk which chemicals present, their presence should be given careful consideration in nearby land use decisions. Hazardous substances are discussed in the following section.

Municipal fire departments provide service to the incorporated cities. Four fire protection districts and one County Service Area provide protection to most of the unincorporated Planning Area. The California Department of Forestry also provides some wildland fire protection, however, as Figure 8 illustrates, large areas of unincorporated County still lack structural fire protection. Even where fire protection services are provided, the series of small district fire departments are financially pressed to maintain effective services. Alternative methods of providing fire protection which are more efficient and cost effective have been discussed, but no definite solutions have been adopted.

MISCELLANEOUS HAZARDS

Miscellaneous hazards include pesticides, fertilizers, petroleum, and radioactive, flammable, toxic, or explosive materials. As a national leader in agricultural production, employing





CENTRAL SALINAS VALLEY PLANNING AREA

PLANNING AREA BOUNDARY ———

FIGURE 8

FIRE HAZARDS



URBAN/
AGRICULTURAL



HIGH



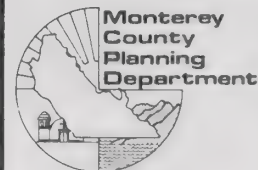
MODERATE

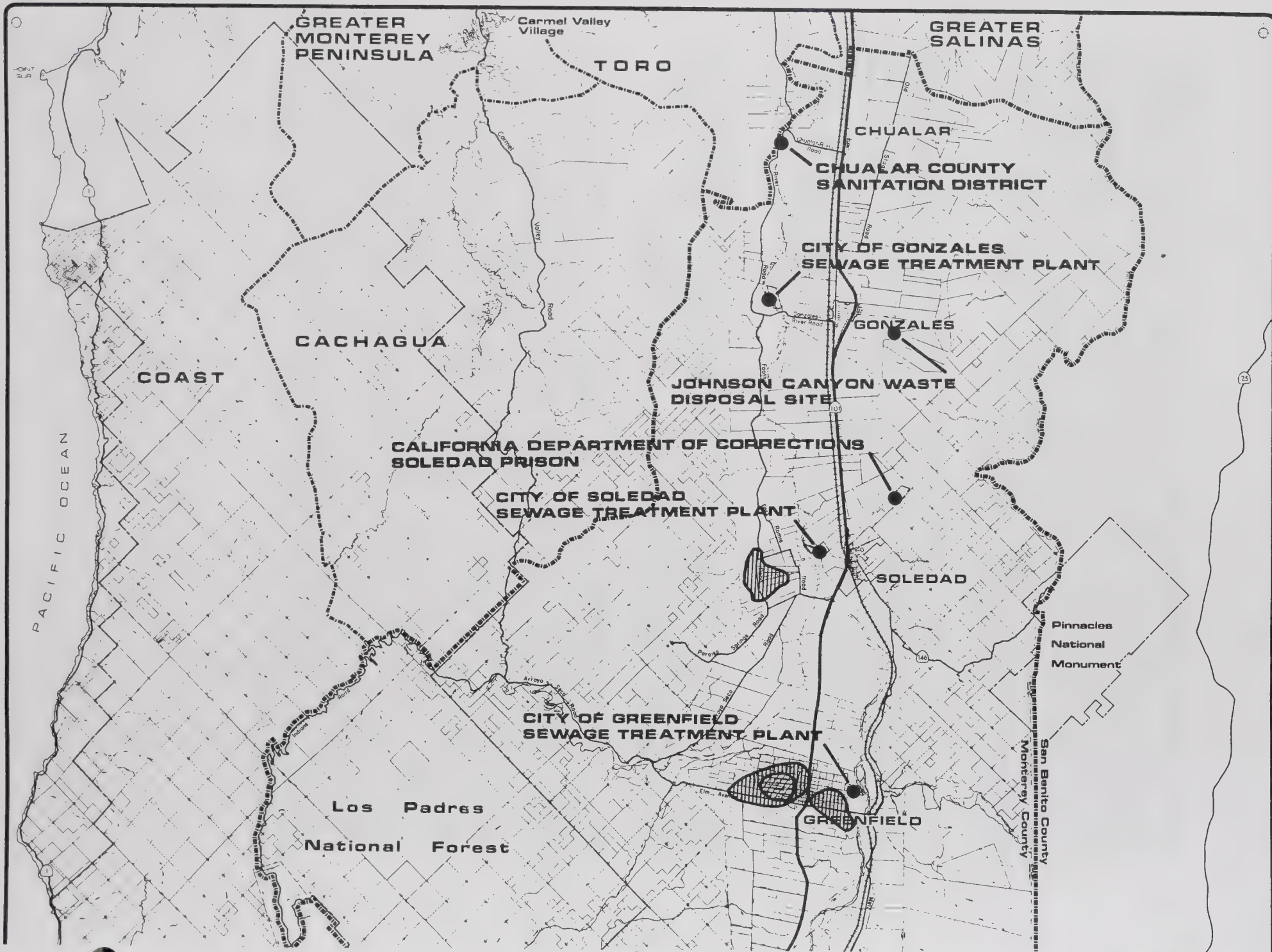


VERY HIGH



0 5000 10000
FEET
OCTOBER 1981





GREATER
MONTEREY
PENINSULA

Carmel Valley
Village

TORO

GREATER
SALINAS

CHUALAR

CHUALAR COUNTY
SANITATION DISTRICT

CITY OF GONZALES
SEWAGE TREATMENT PLANT

GONZALES

JOHNSON CANYON WASTE
DISPOSAL SITE

CALIFORNIA DEPARTMENT OF CORRECTIONS
SOLEDAD PRISON

CITY OF SOLEDAD
SEWAGE TREATMENT PLANT

SOLEDAD

CITY OF GREENFIELD
SEWAGE TREATMENT PLANT

GREENFIELD

Pinnacles
National
Monument

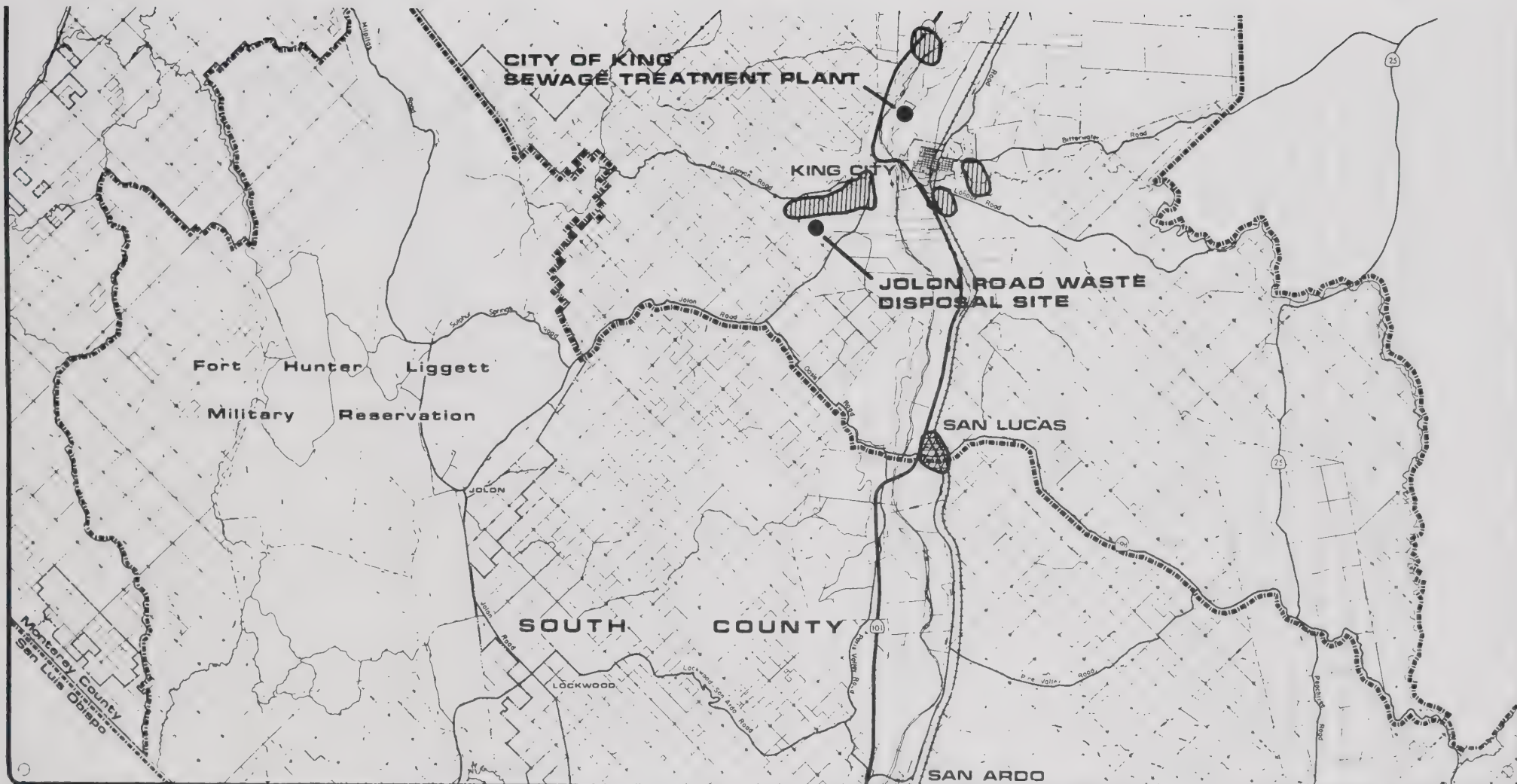
Los Padres
National Forest

San Benito County
Monterey County

COAST

CACHAGUA

PACIFIC OCEAN



CENTRAL SALINAS VALLEY PLANNING AREA

PLANNING AREA BOUNDARY

FIGURE 9

MISCELLANEOUS HAZARDS

AREAS OF CONCENTRATED SEPTIC
TANK USAGE IN SALINAS VALLEY



MODERATE CONCENTRATION



HEAVY CONCENTRATION

SOURCE: MONTEREY COUNTY PLANNING DEPARTMENT, 1986.



0 6000 12000
FEET
DECEMBER 1981



While most of these hazardous substances are regulated by state agencies having pre-emptory jurisdiction, it is still possible for the County to enact more stringent permit conditions or monitoring requirements on uses involving hazardous substances. Monterey County Health Department has instituted a Hazardous Materials and Underground Storage Tank Registration Program. The data generated through this program will be computerized and made available to County Communications to use in emergency response situations. Furthermore, development proposals can be referred to the Environmental Health Department for review with regard to their proximity to hazardous substances. As the population of the Central Salinas Valley increases, the County may wish to take appropriate action to ensure the health, safety, and welfare of its residents.

EMERGENCY PREPAREDNESS

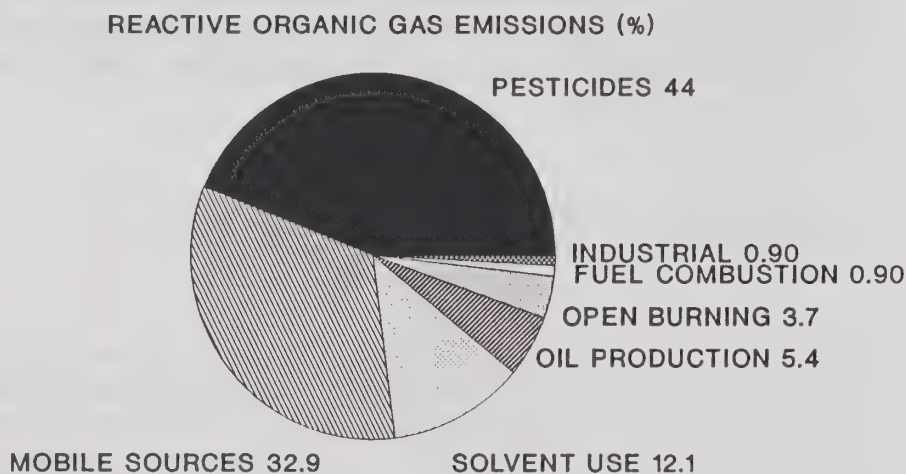
Safety planning is concerned with the prevention of hazards and the ability to deal with emergencies should they arise. While prevention is the most cost-effective and least stressful way to save lives and protect property, the County must also be prepared if disaster should strike. The County must anticipate possible needs and be able to respond to all emergencies to the fullest extent of its resources.

The County Health Department is presently on call 24 hours every day through the 911 exchange to respond to emergency situations.

The Monterey County General Plan, on pages 46 and 47, explains the types of affirmative actions needed to respond to widespread emergencies. Further information on these actions can be obtained from the Monterey County Emergency Plan. Through Policy 19.1.4, the Monterey County General Plan provides for some amendments to the Emergency Plan which would allow greater detail and, therefore, greater preparedness in responding to emergencies. Many of the policy mandates can be accomplished through the eight area plans. The mandates include identification of evacuation routes, provisions for emergency shelter, transportation, clothing, food, and medical aid and identifying the roles and relationships of all governmental, quasi-governmental, and private service agencies within the community. California Assembly Bill 2185, passed in 1985, will supplement existing inventories of hazardous materials and require entities storing them to prepare Release Response Plans. The information base resulting from this legislation could be a valuable resource for strengthening the County's emergency response plans.

AIR QUALITY

Monterey County is part of the North Central Coast Air Basin, which also encompasses Santa Cruz and San Benito counties. Air Quality in the Basin is generally favorable, yet several sources of pollution are degrading the Basin's air. The Air Basin is currently within attainment levels of all pollution types identified in the National Ambient Air Quality Standards with the exception of ozone.



Reactive organic gas emissions (ROGs) are a major contributor to ozone.

According to the 1982 Air Quality Plan for the Monterey Bay Region prepared by AMBAG, the principal contributors to ozone in Monterey County are pesticides, motor vehicles, organic solvent use, and petroleum production. According to the Air Quality Plan, pesticide application accounts for 44% of the total ROGs in Monterey County. Seasonal adjustments to this estimate have not been made, but would probably show that the daily tonnage of pesticides released into the atmosphere during the growing season is significantly greater than the daily average over the entire year. Health hazards associated with the application of agricultural chemicals are an important factor when considering the compatibility of agricultural and residential land uses. Reconciling the needs of the agricultural industry with the responsibility to ensure the health and safety of the valley's growing population will be a complex problem for future County decision makers.

WATER QUALITY

Water quality is a significant factor in water supply because it determines what uses available water is suited for. The three primary consumers of water in the Central Salinas Valley are agriculture, residential, and commercial uses. Depending on the type and degree of contamination, certain uses may not be viable when water supplies become degraded. Water unfit for drinking may often be acceptable for irrigation, but because domestic supplies in the

Planning Area are drawn from the same groundwater basins as irrigation water, the quality of groundwater must be maintained at drinking water standards. This importance is reaffirmed by the fact that water resources are limited. Once a water supply is contaminated it cannot be easily replaced. Maintenance of groundwater quality is also necessary because of the hydrologic continuity of the Salinas Valley sub-basins. Contamination of one sub-basin may lead to contamination of others.

The County Health Department, which is responsible for water systems with 2 to 200 connections, has been routinely monitoring all water systems in the Central Salinas Valley for primary and secondary drinking water standards, as well as bacteriological standards. All water systems of 200 or more connections are permitted and monitored by the State Department of Health Services.

Water quality in the Planning Area's major rivers varies. The Salinas River is extremely degraded due to low flows, agricultural runoff, and leachates from wastewater treatment facilities located adjacent to the River. A recent study revealed that fish found in the Salinas River contain extremely high levels of pesticides.⁵ Water quality in the Arroyo Seco River is generally good, however high sulfur concentrations occur in certain areas.

Groundwater quality in most of the Planning Area is still generally good. However, nitrates, natural mineralization, and trace elements are becoming significant contaminants in some areas. Nitrate contamination is probably the most significant contaminant. The California Department of Health has set a maximum allowable limit for drinking water of 45mg/L of nitrate (NO₃). Of 252 wells tested in the Salinas Basin in 1981, 22% contained nitrate levels greater than 45mg/L. Furthermore, nitrate levels have been increasing. Nitrate contamination has already forced the closing of a municipal well in Gonzales and is affecting Greenfield's water supply.⁶ Table 5 shows the levels of nitrate in Salinas Valley Sub-Basin wells and the percent increase of nitrate

TABLE 5

COMPARISONS OF 1978 TO 1985 NITRATE CONCENTRATIONS FOR GROUNDWATER
SUB-BASINS WITHIN THE SALINAS VALLEY, WITH PROJECTED NITRATE
CONCENTRATIONS FOR YEAR 2000

AREA	NO. OF COMPARISONS	AVG. NITRATE CONC. mg/L 1978*	AVG. NITRATE CONC. mg/L 1985	ANNUAL % CHANGE	PROJECTED AVERAGE NITRATE CONC. mg/L 2000
P-180	45	14.8	20.2	4.4	39.3
EAST SIDE	39	37.9	57.4	5.9	139.7
FOREBAY	33	35.7	41.7	2.2	58.2
UPPER VALLEY	18	35.5	49.8	4.8	102.8
TOTAL	135	29.3	40.1	4.5	78.5

* To increase the number of comparisons, 1982 data was used where 1983 data was not available.
Source: Monterey County Flood Control and Water Conservation District.

5. ABA Consultants, Elkhorn Slough Wetlands Management Plan Preliminary Draft Report, Preliminary Draft (May 1986), p. 5.
6. Association of Monterey Bay Area Governments, Housing Needs Report (1981), p.68.

concentrations for the years 1978 to 1983. It can be seen that nitrate concentrations in the East Side and Upper Valley sub-basins already exceed the safe limit of 45mg/L established by the State Department of Health. Table 5 also projects that by the year 2000, mean nitrate concentrations will exceed the drinking water standard by 1.4 to 2.6 times in all the valley's sub-basins. Probable sources of the rising nitrate levels include: locally concentrated septic systems; heavy fertilizer applications on very permeable soils; and poor management of agricultural fertilizers and wastes. Table 6 lists other groundwater quality problems in the Planning Area.

Poor surface water quality in San Lorenzo Creek and the other streams which drain the east side of the Diablo Mountain Range, and irrigation water which has leached through soils containing a high concentration of salts are major contributors to the groundwater mineral content in the East Side and Upper Valley sub-basins. Many wells in the Arroyo Seco area also showed high levels of sulfate concentrations.⁷ Cadmium and boron are among the trace elements occurring in the Upper Valley sub-basin.

TABLE 6

GROUND WATER QUALITY PROBLEMS BY SUB-AREA

Sub-basin and Sub-area =====	Saltwater Intrusion =====	Nitrates =====	Salts Buildup =====	Landfill Leachate =====	Naturally Occurring Salts =====	Trace Elements =====
SALINAS VALLEY						
Pressure 180	XXX	XXX	XX	?	---	X
Pressure 400	XXX	X	X	---	?	XX
East Side	X	XX	?	---	XXX	X
Forebay	---	XXX	XX	---	XXX	XX
Arroyo Seco Cone	---	XX	---	---	X	X
Upper Valley	---	XXX	XX	XX	XXX	XXX

The estimated severity of each problem within an individual sub-area is indicated as:

- ? May be Present; not determined due to lack of data.
- X Present in isolated wells, or considered to be an imminent potential problem.
- XX Present in a limited number of wells, or seriously constrains the usage of water by several individual landowners.
- XXX Present in a significant number of wells, or is a significant threat to public health or economic development in the subarea, based upon present standards.

Source: H. Esmaili and Associates, "Non-point Sources of Groundwater Pollution in Santa Cruz and Monterey Counties, California", 1978.

7. Mike McGee, Personal Communication, August 4, 1986.

Saltwater intrusion into the Pressure sub-basin is an increasingly serious problem. Although those portions of the Planning Area drawing from the Pressure aquifers are not yet affected, continued intrusion could result in losses in crops, jobs, and land value, as well as reduced groundwater storage capacity and loss of the sub-basin's ability to distribute and supply water.

Given the limited amount of water resources in the County and the Planning Area, maintaining water quality is a vital concern. Several agencies are currently active in developing plans to address this concern. Two examples are the Protection Plan for Nitrates in the Salinas Ground Water Basin prepared by the Monterey County Flood Control and Water Conservation District and the Water Conservation Plan for Monterey County are two examples.

NOISE HAZARDS

The main objective in identifying noise hazards is to achieve noise compatible land uses which maintain living and working conditions free from annoying and harmful sounds. The harmful effects of noise range from annoyance, irritability, and stress to heart disease, digestive disorders, and hearing impairments. A person's reaction to noise is not determined by the noise alone but also by the environment in which the noise occurs. People who live near industrial areas accept more noise than those who live in non-industrial areas, however it is likely they would demand less noise had they a different basis for judgment. When evaluating noise impacts in Central Salinas Valley, it is important to consider the rural character of many unincorporated residential areas. One of the primary amenities attracting people to live in a rural setting is the peace and quiet. Acceptable noise levels in these areas may be different than in the more urban areas of the valley. While 60 dBA is generally considered to be the level at which noise becomes a problem, the actual noise level which people find acceptable is considerably less. Table 7 shows the different noise levels which people prefer in particular living environments.

Noise sensitive areas in the Central Salinas Valley include all schools and hospitals, as well as Pinnacles National Monument, Los Padres National Forest, and San Lorenzo Park.

The principal sources of noise exceeding 60 dBA in the Planning Area are highway traffic along the 101 corridor, Southern Pacific Railroad operations, and flight operations at Mesa Del Rey Airport in King City. In general, these sources pose no "hazard" because noise levels outside their respective rights-of-way do not exceed 60 dBA. Other sources of noise include industrial plants, food processing and packing plants, the landfill sites on Johnson Canyon and Jolon Roads, oil wildcatting activities, and agricultural equipment. Occasional military exercises at Fort Hunter Liggett also have significant noise impacts over a wide area. Table 8 lists available loudness contours in the Planning Area.

Table 7
NOISE LEVELS PEOPLE WANT

<u>Location</u>	<u>Sound Level in dBA</u>	
	<u>Day</u>	<u>Night</u>
Rural Residential	35	25
Suburban Residential	40	30
Urban Residential	45	35
Commercial	55	45
Industrial	60	50

Source: State of California Department of Health, A Report to the 1971 Legislature on the Subject of Noise Pursuant to Assembly Concurrent Resolution 165, (Sacramento, 1971) p. 33.

The Board of Supervisors has directed the County Department of Environmental Health to obtain the necessary staffing and instrumentation to initiate and implement a comprehensive countywide noise ordinance.

Table 8
LOUDNESS CONTOURS IN THE CENTRAL SALINAS VALLEY

<u>Location</u>	<u>Loudness (dBA)</u>
Cal Compac Foods/Bitterwater Road in King City - at 100 ft.	55 -65
Metz Road at Paul Masson Winery	40 - 68
State Route 146 at Metz Road - at 50 ft.	57.5
State Route 198 at San Lucas East - at 50 ft.	58
<u>U.S. Highway 101</u>	
North Gonzales Intersection at 50 ft.	74.1
King City/Broadway Intersection at 50 ft.	73.3
Junction Route 198 East at 50 ft.	71.1

Sources: Monterey County Health Department, Division of Environmental Health, 1974; Monterey County Planning Department, July and August, 1974; CALTRANS, 1980; Earth Metrics, Inc. 1980.

CHAPTER III: HUMAN RESOURCES

The human resources component encompasses the demographic and socioeconomic analysis of the Central Salinas Valley Planning Area. The size, characteristics, distribution, and population projections are explored in the demographic section. The social and economic characteristics of the population - level of education, personal income, number of low income households, and employment - as well as the area's economic base are analyzed in the socioeconomic section. The size and composition of the current and projected population and its economic resources form the foundation for major planning decisions and are essential in forecasting demand for housing, jobs, land, water, recreational facilities, and transportation systems.

DEMOGRAPHIC ANALYSIS

Population Trends

The population of the Central Salinas Valley has grown moderately since 1970. Table 9 indicates that the population in 1980 was 31,092 which is an increase of about 34% in ten years. This percentage increase ranked fifth among Monterey County's eight planning areas.

TABLE 9

Population Change 1970 - 1980

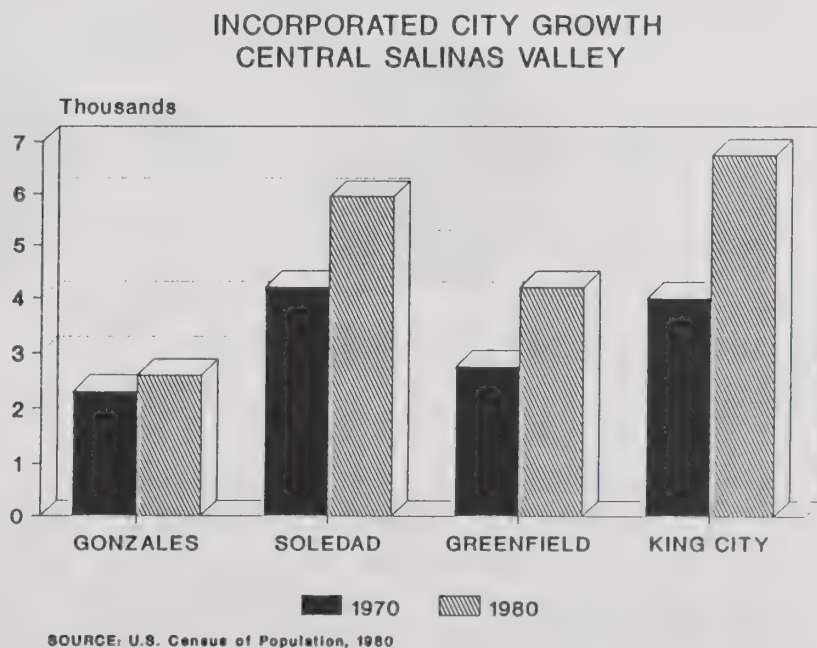
Location	1970 Population	1980 Population	% Change 1970-1980
Central Salinas Valley Planning Area	23,225	31,092	33.8%
Monterey County	247,450	290,444	17.4%

Sources: 1970 and 1980 U.S. Census of Population.

Incorporated Cities

Between 1950 and 1980, the population growth of the Planning Area's four incorporated cities was significant. Gonzales had a 59% increase in growth. Greenfield had the highest percentage increase in growth with 219%. Both Greenfield and Gonzales were incorporated in

1947. During the same 30 year period King City, which was incorporated in 1911, grew 134% while Soledad, which was incorporated in 1921, grew by 143%. Greenfield, Soledad, and King City were the fastest growing cities in the County between 1950 and 1980.

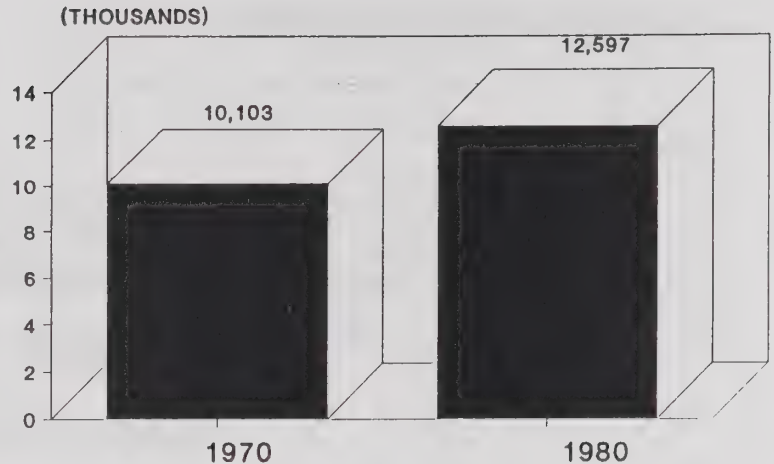


UNINCORPORATED GROWTH

Unincorporated Area

The population in the unincorporated portion of the Planning Area was 10,103 in 1970 but increased by 22% to 12,597 in 1980, primarily due to growth surrounding the incorporated cities. Additional growth occurred in the communities of Chualar and San Lucas. Chualar, located eight miles south of Salinas, grew from 538 persons in 1970 to 638 persons in

1980 for a 19% population increase. San Lucas, located eight miles south of King City, increased from 160 persons in 1970 to 221 persons in 1980 for a 38% increase.



Population density in the Central Salinas Valley was about 27 people per square mile in 1970 and 36 people per square mile by 1980, including both the incorporated and unincorporated areas. The actual density for the unincorporated area only was 14 people per square mile. The actual density for most of the unincorporated area is even less because much of the unincorporated population lives in suburban communities. Table 10 shows the distribution of persons

TABLE 10
1980 Population Density of Incorporated Cities
and Unincorporated Area

Jurisdiction	1980 Population	Area (Square Miles)	Density (Persons/ Square Mile)
Unincorporated Area*	12,597	852.3	14.8
Gonzales	2,891	0.6	4,818.3
Greenfield	4,181	0.8	5,226.0
King City	5,495	1.9	2,892.1
Soledad	5,928	1.0	5,928.0
Total Planning Area	31,092	856.6	36.0

* Includes the Soledad Correctional Facility acreage and population.

Sources: 1980 U.S. Census of Population; Monterey County Planning Department, Existing Land Use Analysis (May, 1980).

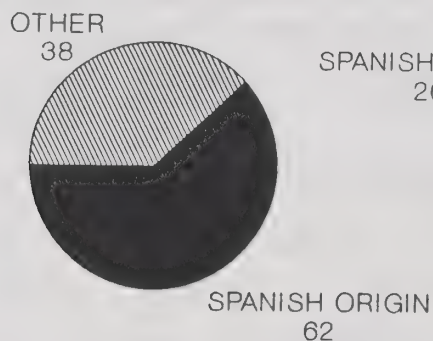
per square mile in the Central Salinas Valley in both the incorporated and unincorporated areas. Table 10 reflects the fact that 74% of the Planning area is devoted to agriculture. Among Monterey County's eight planning areas the Central Salinas Valley ranks second in size with 857 square miles and fifth in population density.

POPULATION CHARACTERISTICS

Racial and Ethnic Composition

The Planning Area's racial composition differs significantly from that of the County as a whole. Area residents classified as "white" accounted for about 56% of the population compared to 70% countywide, while the remaining four racial groups; Asian and Pacific Islander, Black, American Indian, Eskimo, Aluet and "other"; comprised the remaining 44% compared to 31% countywide. Over 62% of Planning Area residents were of Spanish origin compared to the countywide figure of 26%. Interestingly, almost 96% of the persons of Spanish origin indicated they were of "Mexican descent", compared to about 26% for the entire county.

CENTRAL SALINAS PLANNING AREA
PERCENTAGES



MONTEREY COUNTY
PERCENTAGES



Age Structure

The median age in the Central Salinas Valley varies slightly from census tract to census tract, but is generally similar to that of the entire County. The Planning Area's median age of 23.3 was slightly lower than the countywide figure of 27.6. Proportionately, almost 34% of the Planning Area's population was under 17 years of age compared to 28% for the County. Overall, the Central Salinas Valley has a higher proportion of children and young adults between 0-34 years and a lower proportion of adults 35 years and over than the County. The Planning Area had the same proportion of residents age 55 and older as the County at 17.6%.

TABLE 11
CURRENT AMBAG FORECASTS (YEAR 2000)

Area	1980 Population Base	Year 2000 Forecast	20 Year Change	Percent Increase
Census Tract 108	6,527	9,670	+3,143	+48.1%
Unincorporated	3,636	4,650	+1,014	+27.9%
Gonzales City	2,891	5,020	+2,129	+73.6%
Census Tract 109*	2,932	3,450	+518	+17.7%
Unincorporated	2,932	3,450	+518	+17.7%
Census Tract 111**	7,541	10,660	+3,119	+41.4%
Unincorporated	1,663	2,600	+937	+56.3%
Soledad City	5,928	8,060	+2,132	+36.0%
Census Tract 112	5,854	8,825	+2,971	+50.8%
Unincorporated	1,673	2,280	+607	+36.3%
Greenfield City	4,181	6,545	+2,364	+56.5%
Census Tract 113	8,188	14,370	+6,182	+75.5%
Unincorporated	2,693	4,550	+1,857	+69.0%
King City	5,495	9,820	+4,325	+78.7%
	=====	=====	=====	=====
Total Planning Area	31,092	46,975	+15,883	+51.1%
Total Unincorporated within Planning Area	12,597	17,530	+4,933	+39.2%
Total Cities within Planning Area	18,495	29,445	+10,950	+59.2%

Notes: * Includes Soledad Correctional Facility Population.

** Tract split with Cachagua Planning Area.

Growth in the unincorporated areas does not reflect those areas adjacent to the cities that are expected to be annex and developed.

Sources: 1980 U. S. Census of Population;
Association of Monterey Bay Governments.

POPULATION FORECASTS

Population forecasts prepared in 1984 by the Association of Monterey Bay Area Governments (AMBAG) predict that almost 47,000 people will live in the Planning Area by the year 2000. This would require a 2% average annual growth rate which would be slightly lower than the 2.9 rate for the ten years between 1970 and 1980. The growth rate for the entire 20 years would be 51%. It is important to note that the anticipated population increase for the incorporated cities and the unincorporated County between 1980 and 2000 is considerably different than for the Planning Area as a whole, 59.2% and 39.2% respectively. This is primarily due to Monterey County's Growth Management Policy which places the priority for growth on infilling within existing urban areas or lands adjacent to urban areas where the necessary services and facilities are available, except where this impacts prime agricultural lands. Table 11 shows projected growth by census area.

SOCIOECONOMIC DATA

Households

The U.S. Census defines a "household" as consisting of all the persons who occupy a housing unit, related or not. Household data, when combined with demographic data and population forecasts are important indicators of future housing demand with respect to number, size, and type of units. Table 12 indicates the close relationship between median age and household size. Large average household size is indicative of a population characterized by younger persons with children living at home.

Table 12

Number and Size of Households in Central Salinas Valley

City or Area	Persons in Households	Number of Households	Average Size (Persons per Household)
Gonzales	2,862	852	3.36
Greenfield	4,171	1,115	3.74
King City	5,325	1,784	2.98
Soledad	5,904	1,424	4.15
Chualar and Vicinity (Enumeration District 338)	2,177	486	4.48
San Lucas and Vicinity (Enumeration District 344)	977	307	3.25
Total County	272,425	95,734	2.85

Source: 1980 U.S. Census of Population

The average household size in the Planning Area was larger than the County average, especially in Chualar where the average household size was 4.48 persons. Large households are also common in areas where either housing is scarce or incomes are relatively low.

Educational Level

Among the County's eight planning areas, the Central Salinas Valley had one of the lowest levels of educational attainment. For the area as a whole, 42% of those persons 18 years of age and older in 1980 were high school graduates and only 6% were college graduates versus 71% and 16% respectively for the County; as a whole. The King City area had the highest level of education within the Planning Area with 55% high school graduates and 11% college

TABLE 13

Level of Education

Area	Percent High School Graduates	Percent College Graduates
Census Tract 108	34%	5%
Unincorporated	29%	4%
Gonzales	40%	6%
Census Tract 109*	55%	5%
Census Tract 111**	33%	3%
Unincorporated	43%	5%
Soledad City	30%	3%
Census Tract 112	35%	3%
Unincorporated	37%	3%
Greenfield City	34%	3%
Census Tract 113	55%	11%
Unincorporated	58%	12%
King City	<u>54%</u>	<u>11%</u>
Total Planning Area	42%	6%
Total Unincorporated	46%	3%
Total Cities	40%	6%

Notes: *Includes Soledad Correctional Facility.

**Tract split with Cachagua Planning Area.

Source: 1980 Census of Population; Association of Monterey Bay Area Governments Census Data Center.

graduates. In contrast, the Soledad area has only 33% high school graduates and 3% college graduates. (Planning Area Census Tracts are illustrated in Appendix B).

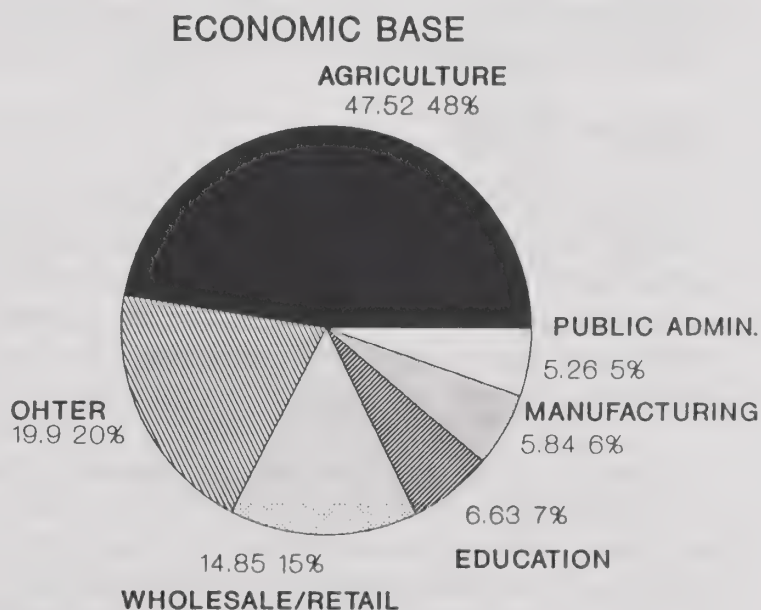
Household Income

According to the 1980 Census, the median household income in the Central Salinas Valley was \$15,648, which is 88.6% of the County's figure of \$17,661. Table 14 shows the median incomes for the incorporated and unincorporated areas of the census tracts that comprise the Planning Area. The unincorporated areas of census tracts 109 and 113 were the only portions of the Planning Area with median incomes which exceeded the County median. Of the Planning Area's households, 47% were in the lower income range of 0 - \$14,999, compared to the countywide total of 41%. In contrast, only 9% of Central Salinas Valley's households were in the higher income range of \$35,000 or more, compared to the countywide total of 14%. A significant proportion of the Planning Area's population lives in poverty. Table 14 also shows the percentage of residents below poverty level for each census tract. It is not surprising that the areas with the highest incidence of poverty coincide with the areas having the lowest percentage of the County median income.

Economic Base

The two major components of the Central Salinas Valley economy are agriculture and manufacturing of non-durable goods. Agriculture represents the most vital component of Monterey County's total economic base, providing jobs related both directly and indirectly with agriculture. According to the 1980 Census, about 48% of the Planning Area's employed labor force are employed by the agricultural industry and 6% by manufacturing. In the Central

Salinas Valley, the percentage of agriculture dependent employment exceeds 60%, when agriculture related manufacturing and transportation are considered. The remainder of the Planning Area's employed labor force are employed in the following industries: armed forces, construction, transportation, wholesale and retail trade, finance, insurance, real estate, personal entertainment, professional services, and public administration. In the Planning Area, these remaining industries comprise 44.5% of the employed labor force, compared to 75.4% countywide.



According to the 1984 Agricultural Commissioner's Crop Report, the gross value of Monterey County's 1984 crop exceeded one billion dollars. Monterey County continues to be the number one vegetable producing county in the nation. Crop and livestock production in the Central Salinas Valley accounts for about 44% of the County's gross annual agricultural crops value. Lettuce and broccoli were the two top cash crops in 1984 grossing \$285 million and \$126 million, respectively. The Planning Area accounts for more than 50% of the County total for these two crops. In addition, more than 90% of the following million dollar crops are grown in the Central Salinas Valley: grapes, cattle, tomatoes, peppers & chili, asparagus, carrots, and garlic.

Manufacturing industries employ about 5.9% of the Planning Area's available labor force, which is consistent with the countywide proportion of 6.1%. Food processing is the primary type of manufacturing and is strongly affected by the seasonal fluctuations in agricultural production. Employment at food processing plants peaks in the spring and fall, remains moderately high during the summer, and declines sharply in the winter. Other forms of manufacturing occur in the incorporated and urbanized centers of the Planning Area.

Other major employers in the Planning Area include: wholesale/retail trades, employing about 15% of the Planning Area's labor force; educational services, employing about 6.7%; and public administration, employing 5.3% of the valley residents.

Economic Outlook

Despite recent efforts to diversify and broaden the economic base of southern Monterey County through expansion of manufacturing and service sectors, the local economy remains agriculturally based. The dependence on agriculture and the attendant seasonal fluctuations in demand for labor account for a periodic high unemployment rate in the area. Rising energy and labor costs during the 1970's decreased the area's comparative advantage in vegetable production. Because of rising transportation costs, the local growers face stiffened competition.

Spurred by rising labor costs and technological development, automation and mechanization are beginning to affect many facets of the agriculture industry. As this trend continues, fewer and fewer farm workers will be needed, even as the acreage under production is increased. The economy of southern Monterey County will probably continue to center around agriculture for many years to come. The natural attributes of the area are uniquely suited to that use. The consensus regarding economic growth in southern Monterey County is that the economy must diversify in order to provide improved employment opportunities for the area's growing population.⁸

8. Group Arcon, Analysis of Spreckels Site Redevelopment and Economic Base Study for South Monterey County (December 1984), p.6.

TABLE 14
1979 HOUSEHOLD INCOME LEVELS

Area	Total Households	Median Household Income	Percent of County's Median Income	% Below Poverty Level
Census Tract 108	1,630	\$14,330	81.1%	19.0%
Unincorporated	778	13,380	75.8%	22.0%
Gonzales	852	15,198	86.1%	14.2%
Census Tract 109*	16	35,225	199.6%	--
Unincorporated	16	35,225	199.6%	--
Census Tract 111**	1,866	15,626	88.5%	15.0%
Unincorporated	442	15,660	88.7%	14.4%
Soledad City	1,424	15,616	88.4%	15.1%
Census Tract 112	1,560	14,315	81.1%	17.4%
Unincorporated	445	13,785	78.1%	22.6%
Greenfield City	1,115	14,526	82.2%	15.3%
Census Tract 113	2,574	17,186	97.3%	13.1%
Unincorporated	790	19,995	110.7%	11.2%
King City	1,784	16,135	91.4%	14.1%
Total Planning Area	7,646	15,648	88.6%	
Total Unincorporated within Planning Area	2,471	15,978	90.5%	
Total Cities within Planning Area	5,175	15,491	87.7%	
Total County	95,734	17,661	100.0%	

Notes: * Includes Soledad Correctional Facility Population.

** Tract split with Cachagua Planning Area.

Sources: 1980 U. S. Census of Population; Association of Monterey Bay Area Governments.

The types of industries best suited to Central Salinas Valley are those which could use a locally grown, quality raw product, employ local labor, and gain an advantage because of lower land costs. It has been suggested that two of the Planning Area's chief assets; abundant, premium agricultural products such as wine-grapes and proximity to recreation opportunities, combined with the booming tourist industry of the Monterey Peninsula, could provide the basis for a thriving wine industry, which in turn would stimulate tourism for the entire County.⁹ The Planning Area's location astride U.S. Highway 101 between Los Angeles and the San Jose/San Francisco area enhance the possibility of attracting visitors from these metropolitan centers.

9. Group Arcon, Analysis of Spreckels Site Redevelopment and Economic Base Study for South Monterey County (December 1984), p.25.

CHAPTER IV: AREA DEVELOPMENT

The Area Development component of this area plan includes discussion of existing land use, public land ownership, transportation, public services and facilities, housing, holding capacity, and future land use. These topics represent the major considerations in the spatial distribution of human activities and the facilities necessary to support them. Area development encompasses the constructed environment.

The existing land use analysis examines the pattern of existing development; that is, it examines the extent and location of land developed with various uses. Public land ownership examines the extent of land owned by public agencies that is therefore unavailable for private development.

The transportation section describes the transportation network for the movement of people and goods. The adequacy of services and infrastructure is analyzed in public services and facilities. The housing analysis describes characteristics and trends in the housing supply and housing conditions. The current holding capacity analysis examines the availability of vacant land for various development uses and provides an estimation of total development potential under the existing General Plan. The land use plans contained in this Central Salinas Valley Area Plan designate the type, location, and intensity of all future land uses in the Planning Area.

EXISTING LAND USE

Land use in the Central Salinas Valley is characterized by small cities and communities regularly spaced along Highway 101; intensive row crop production of the valley floor; grape production on some of the upland terraces; and grazing, watershed, and recreational uses of the mountain ranges. The general character is rural. The Planning Area contains 548,242 acres, or about 857 square miles.

The incorporated cities of Gonzales, Soledad, Greenfield, and King occupy an area of about five square miles. The following paragraphs describe existing land uses in the unincorporated portion of the Planning Area in descending order of the amount of land devoted to each use, while Figures 10 and 11 illustrate these uses.

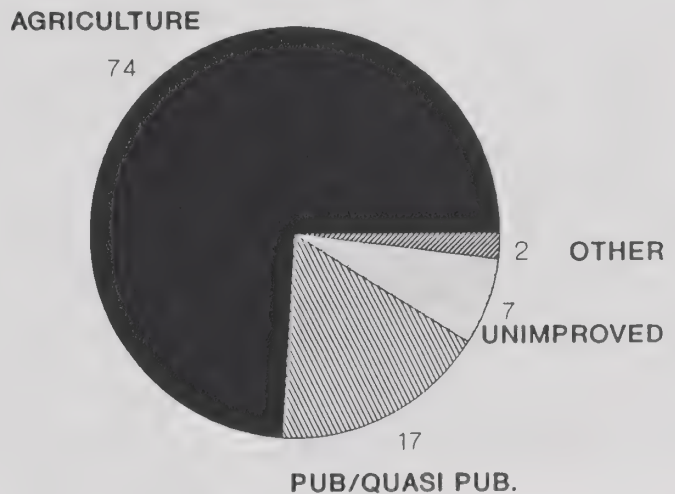
Agriculture/Grazing

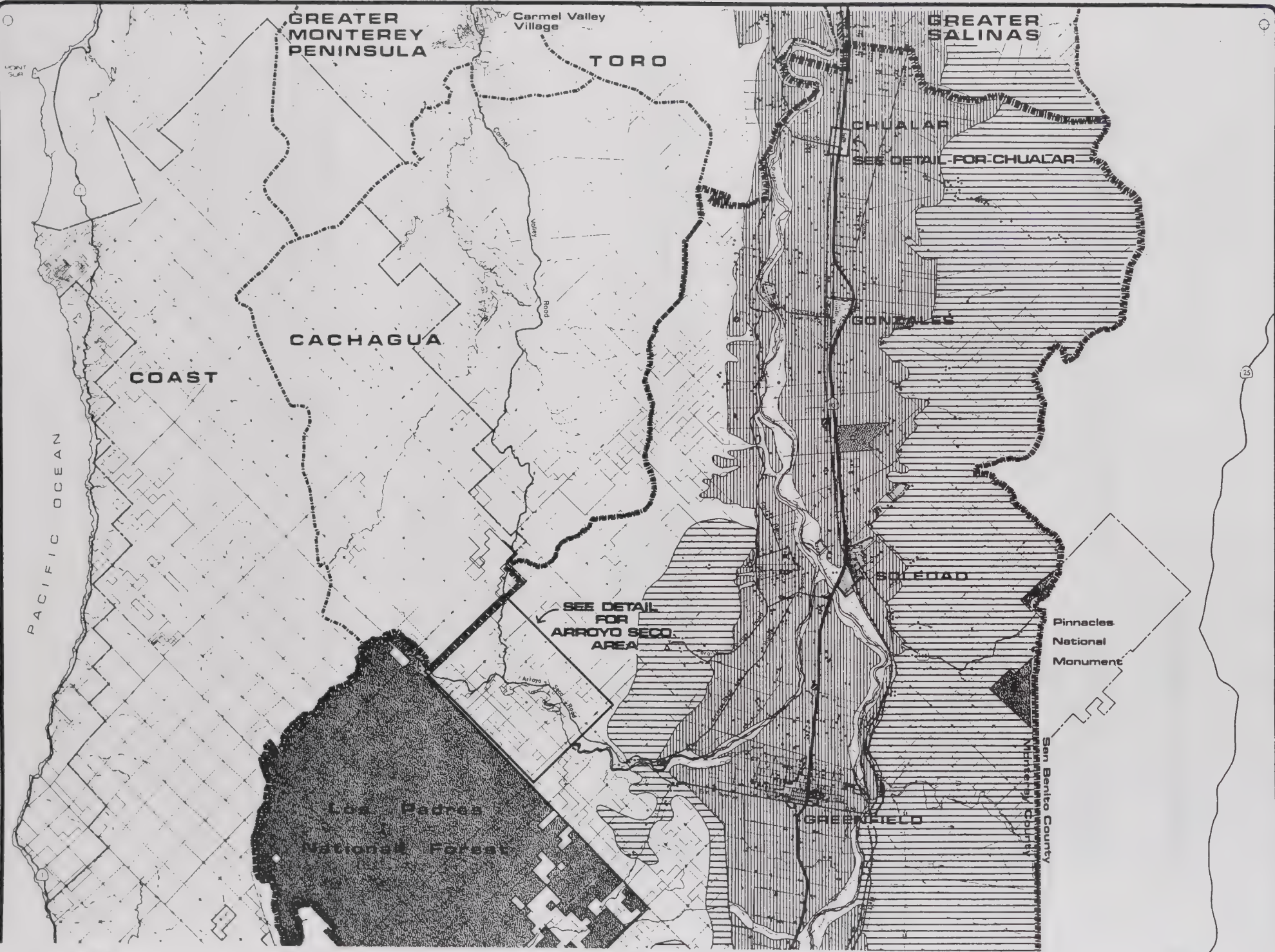
Crop production and grazing uses occupy the largest amount of land in the Planning Area, accounting for about 74% of all the land or 405,000 acres. Row crops are grown throughout the length of the valley which is about 48 miles. Grapes are grown along much of the upland terrace lands and cattle are grazed in the lower mountain ranges above both sides of the valley floor. In 1987, about 189,465 acres were under Williamson Act contracts in the Planning Area.

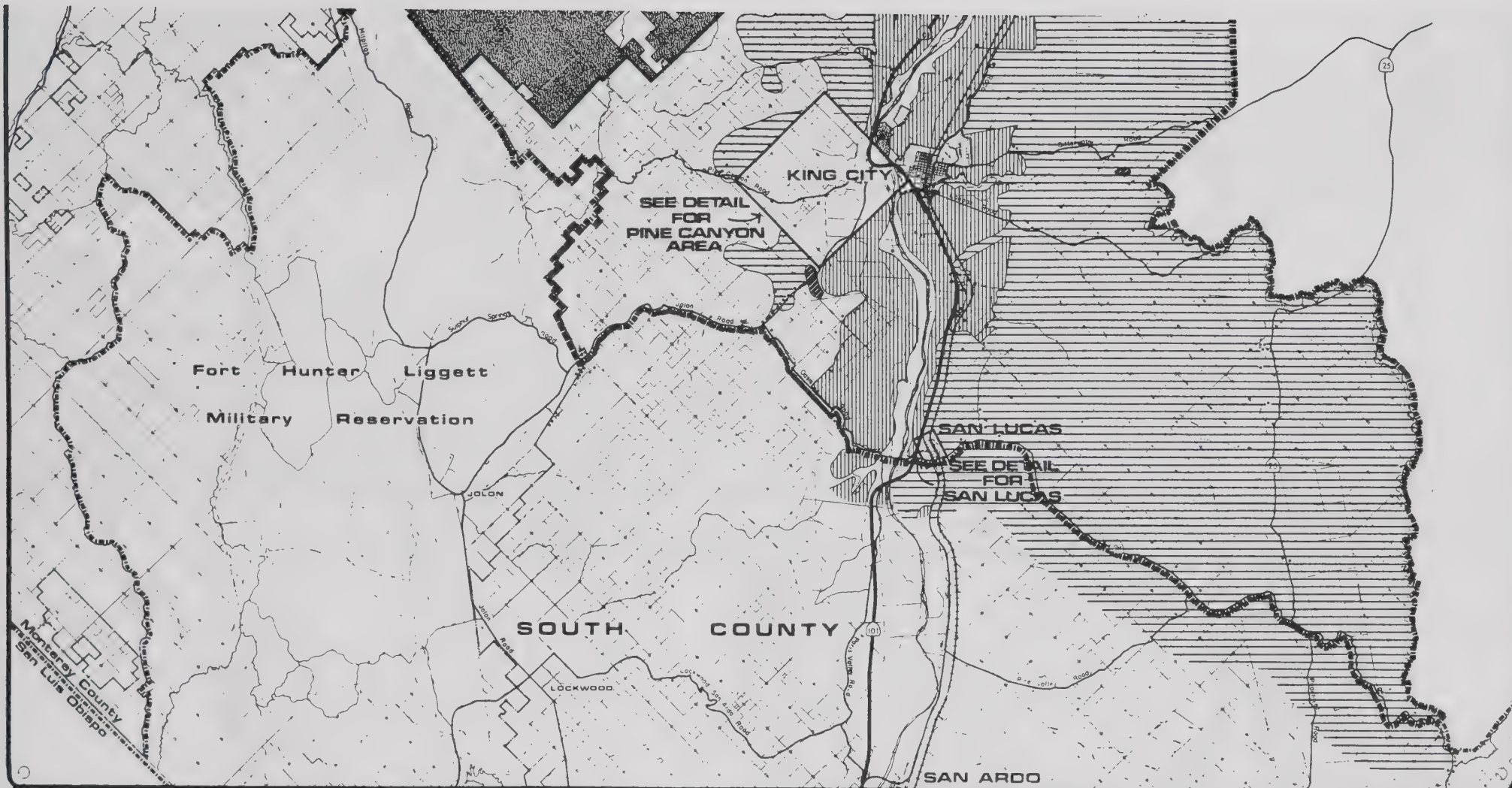
Public/Quasi-Public Lands

Public and quasi-public uses total 94,283 acres or about 17% of the Planning Area. About 93,000 acres are held by the federal government in the Los Padres National Forest or in land under the Bureau of Land Management. Much smaller holdings by the state and County comprise the remainder of the public land within the Planning Area. North of Soledad along Highway 101, the State operates the Soledad Correctional Facility which encompasses approximately 900 acres. Farther south, the County owned San Lorenzo Park occupies about 200 acres near King City.

CENTRAL SALINAS VALLEY PLANNING AREA
EXISTING LAND USE (%)





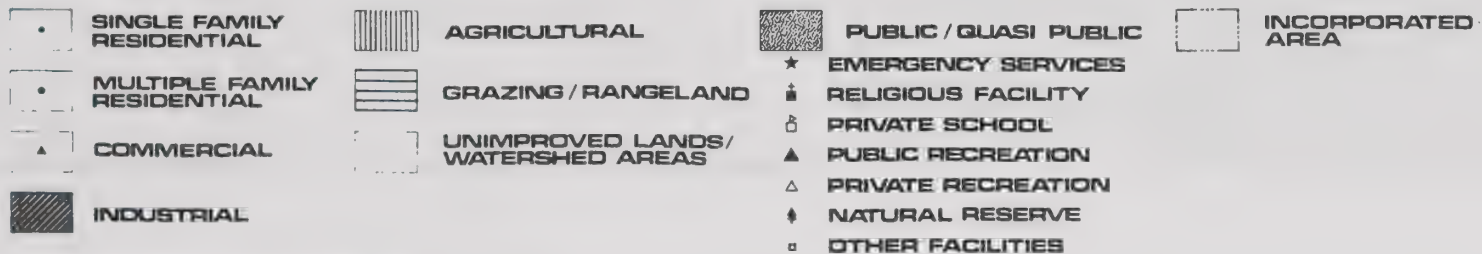


CENTRAL SALINAS VALLEY PLANNING AREA

PLANNING AREA BOUNDARY - - - - -

FIGURE 10

EXISTING LAND USE



SOURCE: MONTEREY COUNTY PLANNING DEPARTMENT, 1983



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CENTRAL SALINAS VALLEY PLANNING AREA DETAILS

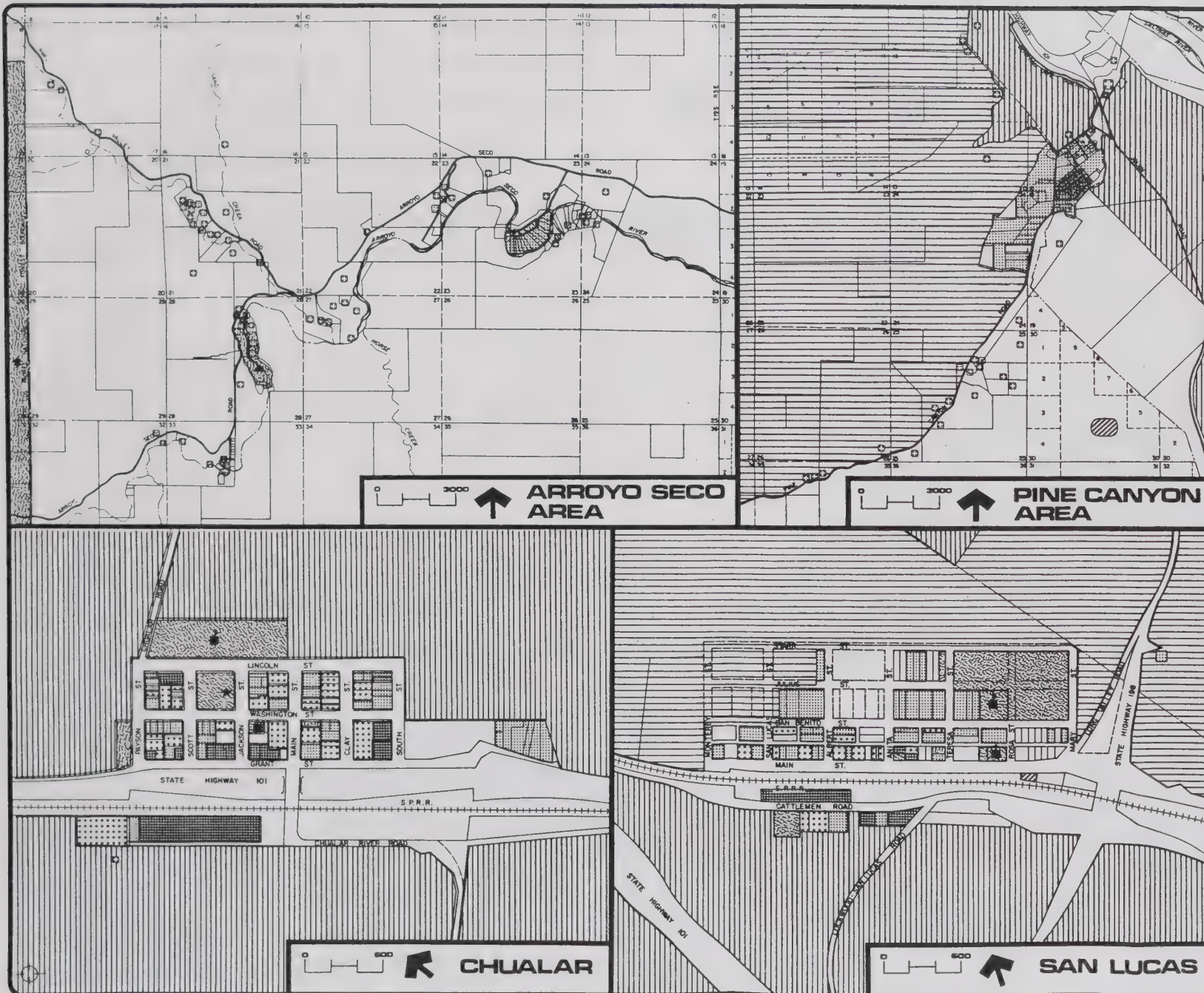
FIGURE 11
EXISTING LAND USE

-  SINGLE FAMILY RESIDENTIAL
-  MULTIPLE FAMILY RESIDENTIAL
-  COMMERCIAL
-  INDUSTRIAL
-  AGRICULTURAL
-  GRAZING/RANGELAND
-  UNIMPROVED LANDS/
WATERSHED AREAS
-  PUBLIC/QUASI PUBLIC
-  PUBLIC SCHOOL
-  EMERGENCY SERVICES
-  NATURAL RESERVE
-  RELIGIOUS FACILITY
-  PUBLIC RECREATION

SOURCE: MONTEREY COUNTY PLANNING
DEPARTMENT, 1983



MAY 1983



Unimproved Lands/Watershed Areas

Unimproved lands total 40,064 acres which is about 7% of the total Planning Area. These areas are generally located in the upper mountain reaches of the Sierra de Salinas and Santa Lucia Mountains that lie within the Planning Area and are presently too steep to develop. These unimproved areas serve important watershed and wildlife habitat functions.

Residential Uses

The majority of the residential development is contained within the four incorporated cities. Residential development in the unincorporated area totals only 1,340 acres or about 0.3%. About 1,233 acres are developed in single family residential use and nearly 107 acres are developed in multiple family residential use. Aside from development concentrated in Chualar, San Lucas, and portions of Pine Canyon, residential development outside of the cities is very rural in nature and is associated with agricultural land use. Pressure for residential development has increased in the Arroyo Seco area, the area surrounding Greenfield, and the previously mentioned Pine Canyon and Chualar Canyon areas.

Industrial Uses

Industrial land uses total 420 acres or about 0.08% of the Planning Area. These land uses include the Johnson Road County Landfill, the Jolon Road County Landfill, sewage treatment facilities for Soledad, Gonzales, Greenfield, and Chualar, an auto wrecking yard, a sand and gravel operation along San Lorenzo Creek, agricultural product processing plants, and several utility and communication sites.

Streets, Highways, and Railroads

Streets, highways, and railroads account for about 4,292 acres in Central Salinas Valley. U.S. Highway 101 is the primary arterial of the Planning Area, providing for vehicular travel throughout its length and linking all the cities and communities in the valley. Significant county roads include: River Road, which parallels 101 on the west side of the Salinas River, Old Stage Road, Pine Canyon Road, Chualar Canyon Road, Johnson Road, Gloria Road, Arroyo Seco Road, Jolon Road, and Metz Road. The roads generally provide access to agricultural areas which are adjacent to Highway 101. Southern Pacific Railroad operates a major route which traverses the length of the Planning Area along the valley floor paralleling Highway 101.

Commercial Uses

Commercial land uses are the least in acreage in the Planning Area, encompassing a total of 91 acres or less than 0.02 of the total land use. The majority of the commercial development in the Planning Area is located along Highway 101 near the incorporated cities and in the community of Chualar.

PUBLIC LAND OWNERSHIP

Over 17% of the Planning Area, or 94,283 acres is publicly owned and, therefore, is not subject to private development. The Federal Government is the largest public landowner in the Planning Area with major holdings consisting primarily of the Los Padres National Forest, Bureau of Land Management, and Pinnacles National Monument. Lands owned by the State total 900 acres or about 0.001% of the total area. This land is used for the State Correctional Facility at Soledad. The major County owned property is San Lorenzo Park near King City, occupying about 200 acres. Streets, highways, and railroads account for 4,292 acres of the Planning Area.

INCORPORATED CITIES

The four incorporated cities in the Central Salinas Valley occupy a combined area of about 3,162 acres, or about 0.5% of the Planning Area's total acreage. The four cities serve as population and economic activity centers for the Planning Area. All four cities share a number of other common characteristics:

- All four lie along U.S. Highway 101 and the Southern Pacific Railroad,
- All four have a general law form of city government,
- All four are within County supervisorial district #3,
- All four have economies dependent on agriculture and serve as support centers for nearby agricultural operations, and
- All four cities are essentially surrounded by prime farmlands.

King City is the most prosperous city in southern Monterey County. Though its economy is primarily based on agriculture, it is much more diversified than the other Planning Area cities. King City serves as the retail trade center for much of southern Monterey County, and has such amenities as a 46 bed hospital, a golf course, tennis courts, and a municipal swimming pool.

The Planning Area cities have experienced rapid growth over the last 30 years. More recently, between 1970 and 1980 the growth rates for the cities have ranged from 12.3% in Gonzales to 60.3% in Greenfield. Haphazard growth patterns and annexations can lead to the destruction of agricultural and open space resources, inefficient service patterns, and degradation of the areas natural resources and quality of life.

The challenge before Monterey County and the Central Salinas Valley cities is to develop a growth management system that will determine the necessity and location of future urban growth while protecting the County's resources, particularly remaining areas of prime agricultural lands.

To help resolve these kinds of issues a Local Agency Formation Commission (LAFCO) was established for each county in 1963. The creation of these commissions was intended to provide a regional review of proposals to expand urban service boundaries and make studies of the logical expansion of cities.

In reviewing proposals for expansion of incorporated cities, LAFCO should give major consideration to the following topics: the suitability of the land for urban development in terms of conserving natural resources and avoiding physical hazards, the balance of jobs and housing within the city and its relationship to the entire County, and the ability to provide services and facilities to accommodate expansion.

The County has identified areas meeting specific criteria regarding physical hazards and resource and watershed protection, and must now work with the cities and LAFCO to determine appropriate urban expansion limits.

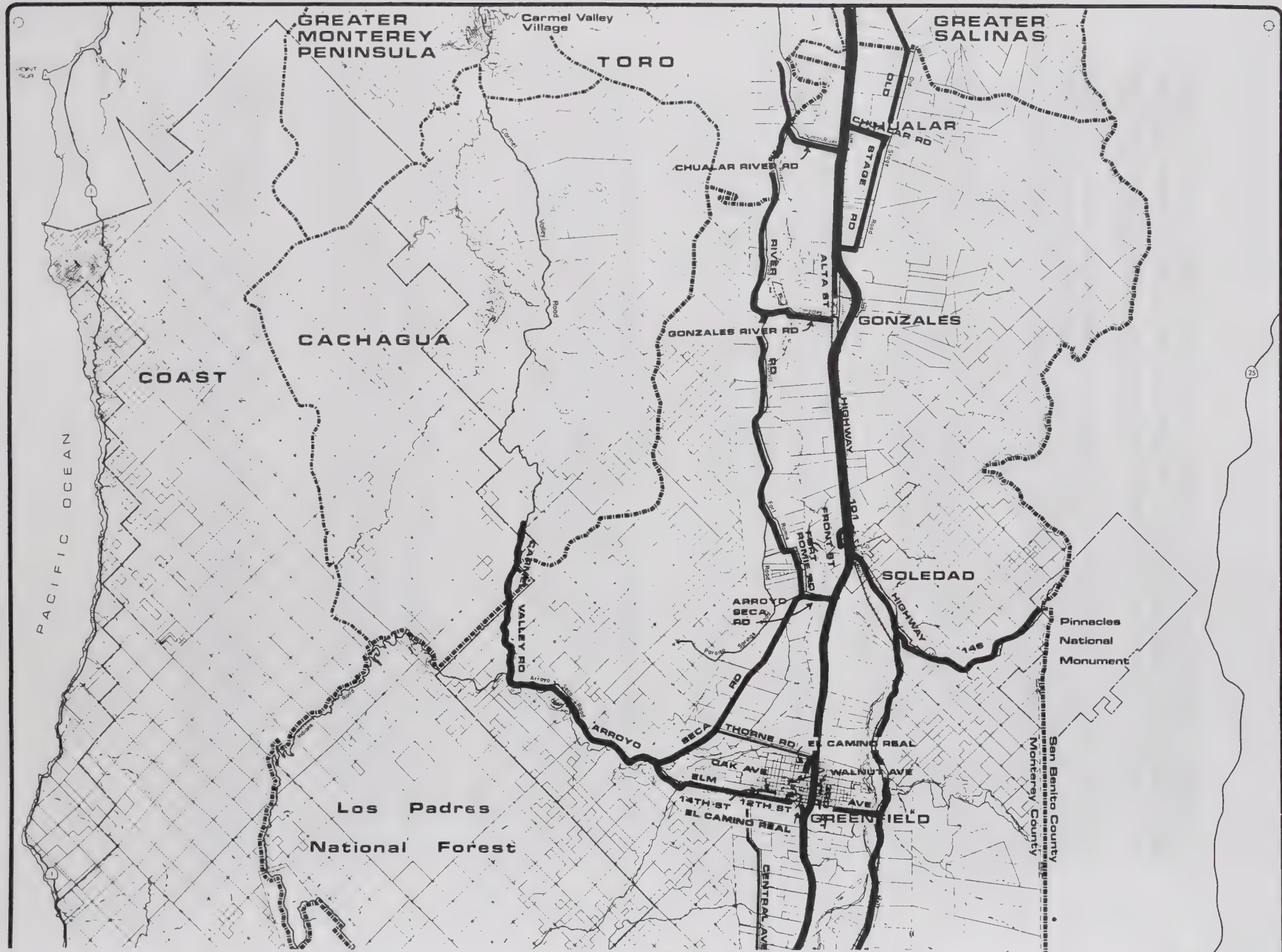
TRANSPORTATION

The Planning Area's transportation system is primarily a network of state highways, county roads, and city streets. Locations of state highways indicate their primary roles as intercity travel corridors while county roads connect more remote areas with the cities and other highways. Figure 12 shows the Planning Area's major roadways by function. Those roads not designated on the map are considered to be "nonclassified" and provide access to specific properties only.

Highways

U.S. Highway 101 is the primary north-south arterial within the County, entering the Central Salinas Valley Planning Area at Chualar. The four lane highway traverses the center of the Planning Area for 48 miles, connecting all of the urban centers, eventually exiting into San Luis Obispo County at Camp Roberts. Highway 101 is the County's most prominent trucking corridor and the principal transport route for goods and services into, out of, and through the Planning Area.

State Highway 25, a minor arterial, begins at a junction with Highway 198, 14 miles east of San Lucas, and heads northwest following San Lorenzo Creek for a distance of 12 miles to the San Benito County line. In San Benito County the highway provides the eastern access to the Pinnacles National Monument.



GREATER
MONTEREY
PENINSULA

Carmel Valley
Village

TORO

GREATER
SALINAS

CHUALAR
RIVER RD

CHUALAR RIVER RD

STAGE
RD

GONZALES

GONZALES RIVER RD

CACHAGUA

COAST

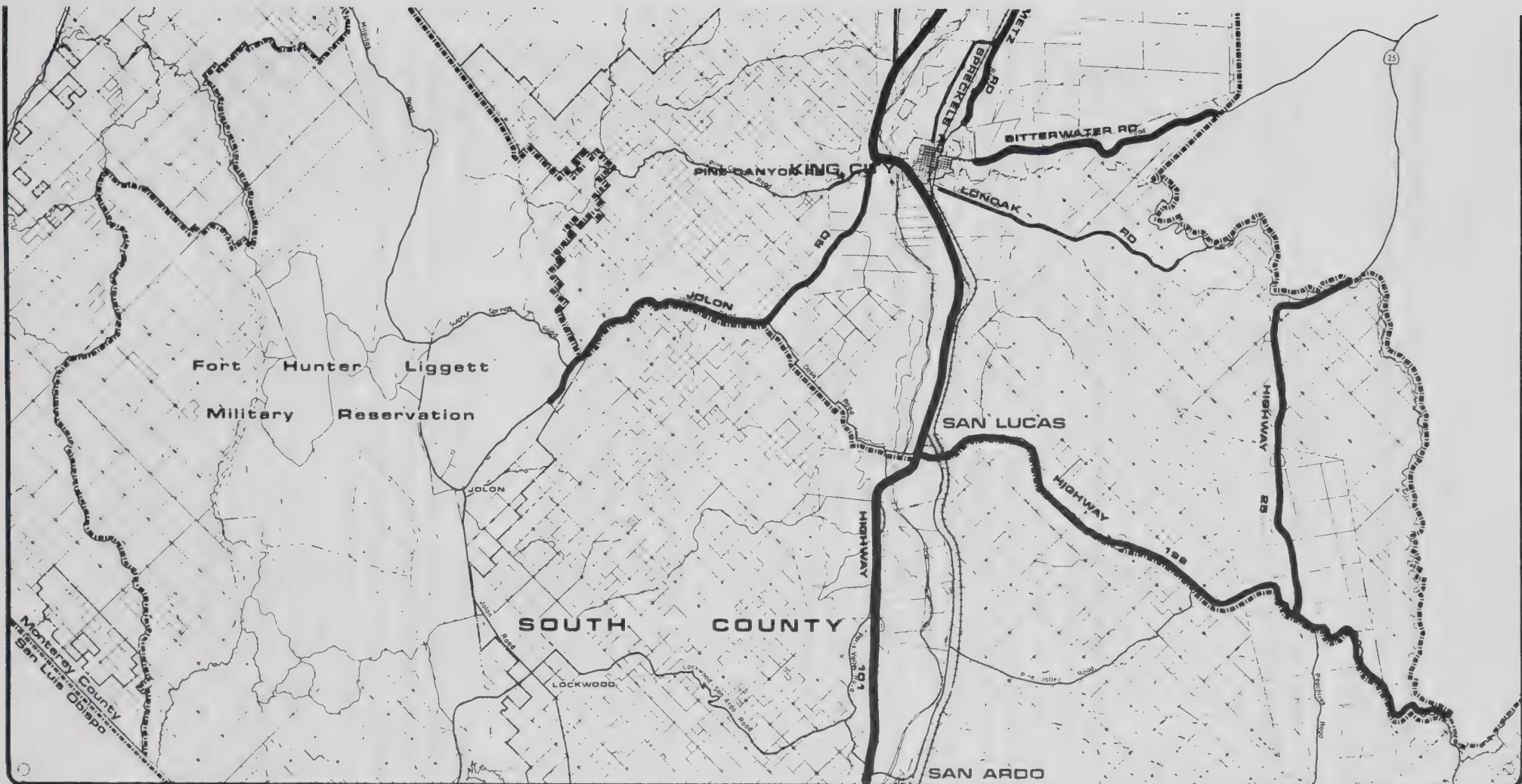
SOLEDAD

Pinnacles
National
Monument

Los Padres
National Forest

GREENFIELD

San Benito County
Monterey County



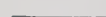


CENTRAL SALINAS VALLEY PLANNING AREA

PLANNING AREA BOUNDARY

FIGURE 12

MAJOR ROADWAYS BY FUNCTION

-  PRINCIPAL ARTERIAL
-  MINOR ARTERIAL
-  COLLECTOR

PRINCIPAL ARTERIAL:
HIGHWAY 101

MINOR ARTERIALS:
ALTA ST
ARROYO SECA RD
BITTERWATER RD
CARMEL VALLEY RD

MINOR ARTERIALS (CONT.):

CHUALAR RD
CHUALAR RIVER RD
EL CAMINO REAL
SLM AVE
FORT ROMIE RD
FRONT ST
GONZALES RIVER RD
HIGHWAY 25
HIGHWAY 148

MINOR ARTERIALS (CONT.):

HIGHWAY 198
JOLON RD
METZ RD
OLD STAGE RD
RIVER RD

COLLECTORS:

CENTRAL AVE
LONOAK RD (PARTIAL)

(CONT.):

OAK AVE
PINE CANYON RD (PARTIAL)
SPRECKELS RD
THORNE RD
WALNUT AVE
3RD ST
12TH ST
14TH ST



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SOURCE: MONTEREY COUNTY MAINTAINED ROAD SYSTEM MAP- CALTRANS & MONTEREY COUNTY PUBLIC WORKS, 1982.

State Highway 146 is a minor arterial beginning at U.S. 101 in Soledad. It meanders eastward into the foothills of the Gabilan Mountains for a distance of 12 miles terminating at the western side of the Pinnacles National Monument.

State Highway 198, also a minor arterial, follows the Planning Area's southern boundary, heading in an easterly direction approximately 26 miles from U.S. 101 at San Lucas to the Fresno County line.

County Roads

Over half the Planning Area's paved road surfaces are either county roads or city streets. Most of them fit the nonclassified functional description, serving as minor rural or local access routes. Figure 12 illustrates that many of the county roads, particularly those serving traffic to and from more densely populated portions of the Planning Area, function as minor arterials and collectors, e.g., Arroyo Seco Road, Elm Avenue, Jolon Road, and Pine Canyon Road. Minor arterials and the smaller streets in the Planning Area's unincorporated communities have few major traffic problems due to the limited number of vehicles using the streets. Traffic management in these communities consists mainly of facilitating traffic flow through engineering measures, such as limiting on-street parking, proper signage, and setting speed limits. These measures are directed more to improve safety rather than increasing traffic carrying capacity. Maintenance of these roads is essential for residents as well as agricultural activities in rural areas. Financing and maintenance of county roads, however, is currently in a state of uncertainty, due primarily to a decrease in funding sources.

Use of Roads and Highways

The use of roads and highways can be measured in daily vehicle miles of travel (DVMT) and annual average daily traffic (AADT). In contrast to DVMT data, which shows only general trends in road use, the AADT data is compiled to determine the amount of use of specific roads or road segments. AADT's for Central Salinas Valley's major county roads and highways are represented in Table 15, using the latest available data. Highest traffic counts occur in and around urban areas and on major highways.

A majority of the roads listed in Table 15 have had increases in traffic volumes between 1978 and 1982. Highway 101 had decreased in traffic volumes between 1978 to 1981 from San Lucas north to Soledad, and increased traffic volumes from Soledad north to Chualar. In 1981, annual average daily traffic (AADT) on Highway 101 ranged from a low of 9,100 at the junction with Highway 198 to a high of 19,600 at the north Gonzales overpass.

The traffic volume AADT for Highway 25 in 1981 was 150. The AADT for Highway 146 ranges from 6,100 at Third Street in Soledad to 250 at Metz Road. AADT for Highway 198 ranged from 1,300 near the U.S. 101 junction to 500 at the Fresno County line. All the listed minor arterials had increased in traffic volumes from 1978 to 1982 with the exception of Chualar

TABLE 15
CENTRAL SALINAS VALLEY ANNUAL AVERAGE DAILY TRAFFIC

	Road Name	From	Limits	To	1979	1981	1983	1984
PRINCIPAL ARTERIAL								
1	State Highway 101	SH 198 (San Lucas)		North	N/A	9,100	10,700	12,300
2	State Highway 101	First Street		North	10,900	10,600	13,700	14,500
3	State Highway 101	Broadway		North	15,100	17,200	20,000	21,100
4	State Highway 101	Jolon Road		North	15,100	14,900	17,500	17,500
5	State Highway 101	S. Greenfield Overpass		North	12,300	12,500	14,500	15,000
6	State Highway 101	Oak Avenue (Greenfield)		North	12,400	13,100	15,500	16,000
7	State Highway 101	N. Greenfield Overpass		North	13,800	15,000	17,500	18,000
8	State Highway 101	Arroyo Seco Road		South	14,200	15,300	18,000	18,500
9	State Highway 101	Arroyo Seco Road		North	14,400	16,600	19,200	20,000
10	State Highway 101	Soledad Prison Overpass		North	15,800	17,200	20,700	21,500
11	State Highway 101	Gloria Road		North	14,000	17,000	18,100	18,200
12	State Highway 101	Johnson Canyon Road		North	14,000	16,300	18,000	19,700
13	State Highway 101	N. Gonzales Overpass		North	17,600	19,600	21,700	22,600
14	State Highway 101	Spence Road		North	16,100	17,600	19,000	21,300
MINOR ARTERIALS								
15	Alta Street (North End)	SH 101		City Limits	N/A	6,300	N/A	7,000
16	Arroyo Seco Road	Indians Road		Carmel Valley Road	1,200	200	N/A	300
17	Arroyo Seco Road	Carmel Valley Road		Elm Avenue	600	650	N/A	850
18	Arroyo Seco Road	Elm Avenue		Thorne Road	350	350	N/A	450
19	Arroyo Seco Road	Thorne Road		Fort Romie Road	1,000	1,000	N/A	12,000
20	Arroyo Seco Road	Fort Romie Road		SH 101	1,550	22,000	N/A	2,300
21	Bitterwater Road	City Limits		County Line	650	1,000	N/A	1,600
22	Carmel Valley Road	Martin Road		Arroyo Seco Road	250	300	N/A	300
23	Chualar River Road	River Road		Folettta Road	1,150	1,150	N/A	1,150
24	Chualar Road	Lincoln Street		Old Stage Road	600	1,100	N/A	1,200
25	El Camino Real (South End)	SH 101		Elm Avenue	2,300	2,600	N/A	2,600
26	El Camino Real (City)	City Limits		Pine Avenue	2,600	2,700	N/A	3,100
27	El Camino Real (North End)	Pine Avenue		SH 101	2,300	2,500	N/A	2,800
28	Elm Avenue	Arroyo Seco Road		Central Avenue	500	500	600	500
29	Elm Avenue	Central Avenue		City Limits	1,000	1,400	N/A	1,400
30	Elm Avenue (City)	City Limits		3rd Street	850	1,200	N/A	1,500
31	Elm Avenue	3rd Street		Metz Road	650	1,000	N/A	1,200
32	Fort Romie Road	Foothills Road		Arroyo Seco Road	800	1,300	N/A	1,500
33	Front Street	N/A		N/A	N/A	N/A	N/A	N/A
34	Gonzales River Road	River Road		City Limits	N/A	2,300	N/A	2,500
35	State Highway 25	North of SH 198		---	120	150	180	N/A
36	State Highway 146	Third Street (Soledad)		West	5,500	6,100	6,000	N/A
37	State Highway 146	Third Street (Soledad)		East	2,500	2,700	2,600	N/A
38	State Highway 146	Metz Road		West	3,500	3,900	1,350	N/A
39	State Highway 146	Metz Road		East	250	250	200	N/A
40	State Highway 198	SH 101 (San Lucas)		---	1,200	1,300	1,600	N/A
41	State Highway 198	East of San Lucas		---	600	600	600	N/A
42	State Highway 198	Fresno County Line		---	500	500	600	N/A
43	Jolon Road	Sulphur Springs		San Lucas Road	1,800	1,800	N/A	1,800
44	Jolon Road	San Lucas Road		SH 101	2,500	2,500	N/A	2,500
45	Metz Road	City Limits		Spreckels Road	750	1,100	N/A	1,100
46	Metz Road	Spreckels Road		Elm Avenue	700	1,100	N/A	1,200
47	Metz Road	Elm Avenue		SH 146	550	600	N/A	1,000
48	Old Stage Road	SH 101		Chualar Road	N/A	1,600	N/A	1,700
49	Old Stage Road	Chualar Road		Esperanza Road	N/A	1,600	N/A	1,700
50	Old Stage Road	Esperanza Road		Alisal Road	N/A	2,800	N/A	N/A
51	River Road	Chualar River Road		Gonzales River Road	500	800	N/A	800
52	River Road	Gonzales River Road		Fairview Road	N/A	800	N/A	900
53	River Road	Fairview Road		Foothill Road	450	500	N/A	500
COLLECTORS								
54	Central Avenue	Elm Avenue		SH 101	500	500	N/A	650
55	Fourteenth Street	Elm Avenue		Oak Avenue	300	300	N/A	550
56	Lonoak Road	1st Street		SH 25	400	700	N/A	900
57	Oak Avenue	14th Street		City Limits	250	250	N/A	450
58	Pine Canyon Road	Merritt Street		Jolon Road	2,100	2,300	N/A	2,900
59	Spreckels Road	City Limits		Metz Road	700	700	N/A	700
60	Thorne Road	Arroyo Seco Road		SH 101	500	500	N/A	650
61	Third Street	Elm Avenue		Cherry Avenue	200	150	N/A	200
62	Twelfth Street	Elm Avenue		Cherry Avenue	200	200	N/A	300
63	Twelfth Street	Cherry Avenue		Pine Avenue	150	100	N/A	100
64	Walnut Avenue	City Limits		3rd Street	550	700	N/A	1,200

NOTE: N/A--Annual Average Daily Traffic Data No Available.

SOURCE: Monterey County Public Works Department, Average Daily Traffic Volume Trends, 1984.

River Road, from River Road to Foletta Road, State Highway 146, from Metz Road east, State Highway 198, from east of San Lucas to the Fresno County line, and Jolon Road, from Sulphur Springs to Highway 101. About half of the listed collector roads had increased in traffic volumes between 1979 and 1982, and the remaining half reported no changes since 1979.

Performance of the County's roads and highways are ranked "A" to "F" according to Level of Service (LOS) calculations. LOS is based upon traffic type and volume, prevailing speeds, roadway conditions and control, alignment, grade, and freedom to maneuver. The six levels of service ranging from ideal, LOS A, to stop and go, LOS F) are defined in the General Plan Update Background Report, Transportation Analysis of Monterey County, July 1981. The Monterey County Regional Transportation Plan (MC RTP) established LOS C or better as the objective for all roads in the County. The only major roadways on the Central Salinas Valley whose present or future traffic loads indicate deficient levels of service include: Arroyo Seco Road, from Highway 101 to Bridge 311, Elm Avenue from Arroyo Seco Road to Bridge 320, and Pine Canyon Road, from Merritt Street to the end of Pine Canyon Road.

Road and Highway Improvements

Planned improvements for the Central Salinas Valley's roads and highways are detailed in the adopted 1984 Monterey County Regional Transportation Plan (MC RTP). The major proposed road and highway improvements for the Central Salinas Valley include the following:

Short Range Program

- The existing highway and county road system will be maintained.
- Accident locations will be monitored and safety improvements provided in accordance with engineering practices.
- Provide park and ride facilities.
- Seismic retrofit of six bridges on Route 101, from Nacimiento River to the Soledad overhead.
- Remove the power poles along Route 101, from 0.4 miles north of Chualar to 0.1 miles north of the Spence Underpass.
- Upgrade the pavement on Route 101, from .5 mile north of King City to 1.5 mile north of the Canal Street Undercrossing Bridge No. 44-180.
- Jolon Road I - Overlay and shoulder widening of Jolon Road near Jolon Grade.
- Jolon Road II - Overlay and shoulders for Jolon Road between Pine Canyon and milepost 31.0.
- Jolon Road III - Overlay and shoulders between the north end of Jolon Road II and Pine Canyon Road.
- Replace the Chualar River Bridge over the Salinas River, Bridge No.306.

Long Range Program

- Continue to maintain existing highway system.
- Continue to monitor accident locations and provide safety improvements as warranted.
- Reconstruct the Elm Avenue Bridge, Bridge No. 321.
- Overlay and add improved shoulders to Jolon Road from Interlake Road to Hunter Liggett boundary and between Mile Post 35 and Highway 101 north.

The planned improvements described above were determined in accordance with funding constraints. Many projects are necessary to alleviate congestion and safety problems if additional funds become available. In the Planning Area, these projects include widening of bridge on-ramps and the reconstruction and realignment of several important county roads including: Arroyo Seco Road, River Road, Metz Road, and Fort Romie Road. Also under consideration is the replacement of the following five bridges: No. 302 at Elm Avenue, No. 326 on Arroyo Seco Road, No. 326 at Reliz Canyon Road, No. 327 at Jolon Road, and No. 312 at Los Coches Road.

Scenic Highways

As indicated in Figure 5 and the previous discussion of visual resources, several of the roads and canyons in the Planning Area exhibit scenic qualities sufficient to warrant their designation as scenic routes or highways. The County's Scenic Highway System is composed of roads and highways that have been designated as either State scenic highways or County scenic routes. The Central Salinas Valley contains areas of inspiring natural landforms and bucolic rural settings which can be appreciated from many of its roads and highways. In recognition of the desirability to preserve these scenic corridors for future generations, the Scenic Highway Element of the County General Plan has proposed that many scenic routes in the Planning Area be constructed or improved to meet the criteria of the Scenic Highway Program. Proposed routes include: Arroyo Seco Road; Bitterwater Road; Carmel Valley Road; Chualar Road; Chualar River Road; Elm Avenue; Indians Road; Jolon Road; Old Stage Road; River Road; and State Highways 25, 146, and 198. None of the proposed scenic highways or roads have yet been officially designated.

Public Transit

The existing transit system in the Central Salinas Valley consists of local demand response service provided by Soledad, Greenfield, and King City, scheduled service by Greyhound Lines West, and a special transportation program for the elderly and handicapped. Greyhound Lines West is operating as an intercity service between Salinas and the Central Salinas Valley cities. Interregional service is provided between Monterey County and the San Francisco Bay and Los Angeles areas. The Rural Health Project, Inc. of King City, under contract to the County, provides door-to-door service to the mobility impaired and provides service for the able-bodied to the nearest fixed-route bus stop. Three vans, one equipped with a wheelchair lift, serve the rural areas between Chualar and San Lucas.

According to the MC RTP, the short range programs for public transit in the Central Salinas Valley involve the maintenance of existing service levels, the purchase of one van for Soledad Transit, a purchase replacement vehicle for Greenfield Transit, and purchase replacement vehicles with wheelchair access for King City Transit. Long-range plans for transit include the consideration of inter-city bus service to Central Salinas Valley cities, a local demand responsive service in Gonzales, and implementing bus service to newly developed areas.

Truck Transportation

Highway 101 is the County's most prominent trucking corridor. Counting stations at Highway 101's junctions with Highway 198, Jolon Road, Highway 146, Soledad Prison, and North Gonzales measure truck traffic through Central Salinas Valley. At Highway 198, Highway 101 carries a significant load, 18% of truck traffic; only the junction of Highways 1, 156, and 183 carries a higher proportion of truck traffic. One third of the traffic is small capacity, 2 and 3 axle trucks, while two-thirds is large capacity, 4 and 5 axle, indicating predominantly long distance commodity movement. The Jolon Road junction carries 13% in truck traffic while the junctions of Highway 146, Soledad Prison, and North Gonzales each carry 16% in truck traffic. Commodity movement along the Highway 101 corridor is predominantly long distance as indicated by the large proportion, over 50%, of large capacity vehicles.

Air Transportation

The Central Salinas Valley contains one public airport in King City and 13 private airports and agricultural landing fields located throughout the Planning Area. While both agricultural landing fields and private airports are located on private property, agricultural landing fields are used exclusively for agriculturally related activities, primarily crop dusting. Mesa Del Rey Airport, owned by the City of King, is located on the north boundary of the City within city limits. The airport is a general aviation facility with no scheduled commercial service.

Railroad Transportation

Rail passenger service to and from Monterey County is provided by AMTRAK and rail freight service is provided by the Southern Pacific Transportation Company (SPTC). The railroad system in the County consists of one main track and one branch track. The main track enters the region in the north at Watsonville extending south through the Salinas Valley to San Luis Obispo and, eventually, San Diego. Salinas is the only city in Monterey County with rail passenger service. The Coast Starlight train serves the Salinas station traveling southbound to Los Angeles and northbound to San Francisco, Oakland, and Seattle. SPTC rail freight stations are located at Castroville, Salinas, and Gonzales in the Central Salinas Valley. Spur tracks serve local industrial sites. The primary products shipped by rail are fresh and frozen vegetables, sugar beets, food products, sand and gravel, and rocks.

Non-Motorized Transportation

Non-motorized transportation includes biking, equestrian, and pedestrian modes. All of these modes can provide recreation as well as basic transportation. However, bicycling has the greatest potential as a viable alternative to the automobile. The relatively level terrain of the valley floor is conducive to bicycle routes and paths which could link the urban centers of the Planning Area. Bike routes are designated by signing only, and no physical improvements are provided. Bike paths are physically separated from adjacent streets and are reserved for exclusive bicycle use. Both bike routes and bike paths can be integrated into an effective network of alternative transportation.

Several historical trails and landmarks appropriate for recreational bicycle routes exist in the Planning Area, e.g. the Juan Bautista De Anza National Trail, the route of Portola during his exploration of the Pacific, and the California Mission Trail. Bypass routes are also necessary where portions of Highway 101 are prohibited to bicycles. In the Planning Area these areas are Highway 101 from King City to the southern boundary, the 101 Freeway near Greenfield, and Highway 101 between Soledad and Greenfield. Cyclists wishing to traverse the valley are forced find alternate routes. According to the "Bikeway System in Monterey County" report, prepared by the Monterey County Transportation Study in 1982, the only designated bike facilities existing in the unincorporated area of the Central Salinas Valley are:

- A bike route in Greenfield along Oak Avenue and First Street from El Camino Real to Elm Avenue which continues as a bike path along Elm Avenue to Oak Park.
- A bike pedestrian crossway that parallels on the South First Street Bridge in King City.

While the Planning Area does contain several roads which have relatively low traffic volumes and sufficient width for bike riding, a hazard does exist for cyclists because these routes are shared with motor vehicle traffic. Currently the only plans for bicycle facilities in the Planning Area exist as general short-range and long-range objectives in the MC RTP to safely accommodate pedestrian and bicycle traffic by:

- Providing bikeway and pedestrian paths which are separated from roadways or are defined from traveled ways;
- Encouraging use of standard signing along bikeways; and
- Encouraging educational programs to make drivers aware of bicyclists' rights on highways.

Current development of bicycle facilities is occurring primarily in the greater Monterey Peninsula cities and Salinas, with plans to close the gaps between the city networks. The Countywide General Plan requires that each area plan map contain an integrated system of bicycle routes for the County. A trails plan will be prepared as a supplemental element to this

Area Plan. This system of area plan bicycle routes will play an important role in filling the gaps between the cities and connecting all areas of the County.

Pipeline Transportation

Pipeline transportation is an inconspicuous yet significant form of commodity transportation. Water, natural gas, and crude oil are the primary substances transported by pipeline in Monterey County. Water and natural gas are the commodities currently transported by pipeline in the Central Salinas Valley. Water transport and purveyors are discussed below. Natural gas is supplied to the Planning Area by Pacific Gas and Electric Company in its own pipeline system using 6- and 8- inch pipelines which roughly parallel Highway 101 along the valley floor. Further south in the South County Planning Area, Mobile Oil owns and operates an oil pipeline between San Ardo and Estero Bay in San Luis Obispo. The pipeline has the capacity to pump 56,000 barrels per day from the San Ardo oil fields to the tanker port at Estero Bay. In 1979, the pipeline carried about 30,000 barrels per day. The presence of oil fields in Central Salinas Valley and the existence of unused capacity in the Mobile Oil pipeline may make possible future pipeline transport of crude oil produced in Central Salinas Valley.

PUBLIC SERVICES AND FACILITIES

Police Protection

The Monterey County Sheriff's Department is the primary provider of police services to the unincorporated areas of the Central Salinas Valley. The Sheriff's Office in Salinas is the department's primary dispatching station and houses the administrative and support staff. The County jail facility is also located in Salinas. Patrols in the southern portion of the Planning Area are dispatched from the Sheriff's Department substation located in King City. The unincorporated portion of the Planning Area is divided into two beats, each of which is patrolled by one deputy in a patrol car at all times. The California Highway Patrol has jurisdiction and law enforcement powers on all state highways and County roads. Patrol cars are dispatched from the Highway Patrol substation on Portola Drive, two miles east of Salinas, and on Broadway Circle in King City.

Park and Forest rangers serve as police officers within the boundaries of their jurisdictions. The U.S. Forest Service has responsibility for law enforcement in the Los Padres National Forest. Two ranger stations serve as command posts for the approximately 65 square miles of the Los Padres National Forest. A portion of the Pinnacles National Monument is also in the Planning Area and is patrolled by rangers of the National Park Service. Monterey County parks are patrolled by County park rangers authorized to enforce park ordinances, protect park property, and maintain peace within County parks.

Soledad, Gonzales, Greenfield, and King City each have their own police departments. While these departments operate only within their incorporated boundaries, mutual assistance agreements are in effect with the County Sheriffs.

Several special-interest law enforcement agencies also exist in the Planning Area. The State Department of Corrections, at the Soledad State Prison, maintains a staff of approximately 739 trained correctional officers, the Department of Fish and Game enforces laws concerning illegal hunting, and the Immigration and Nationalization Service has approximately five border agents operating from its Salinas office.

Fire Protection Services

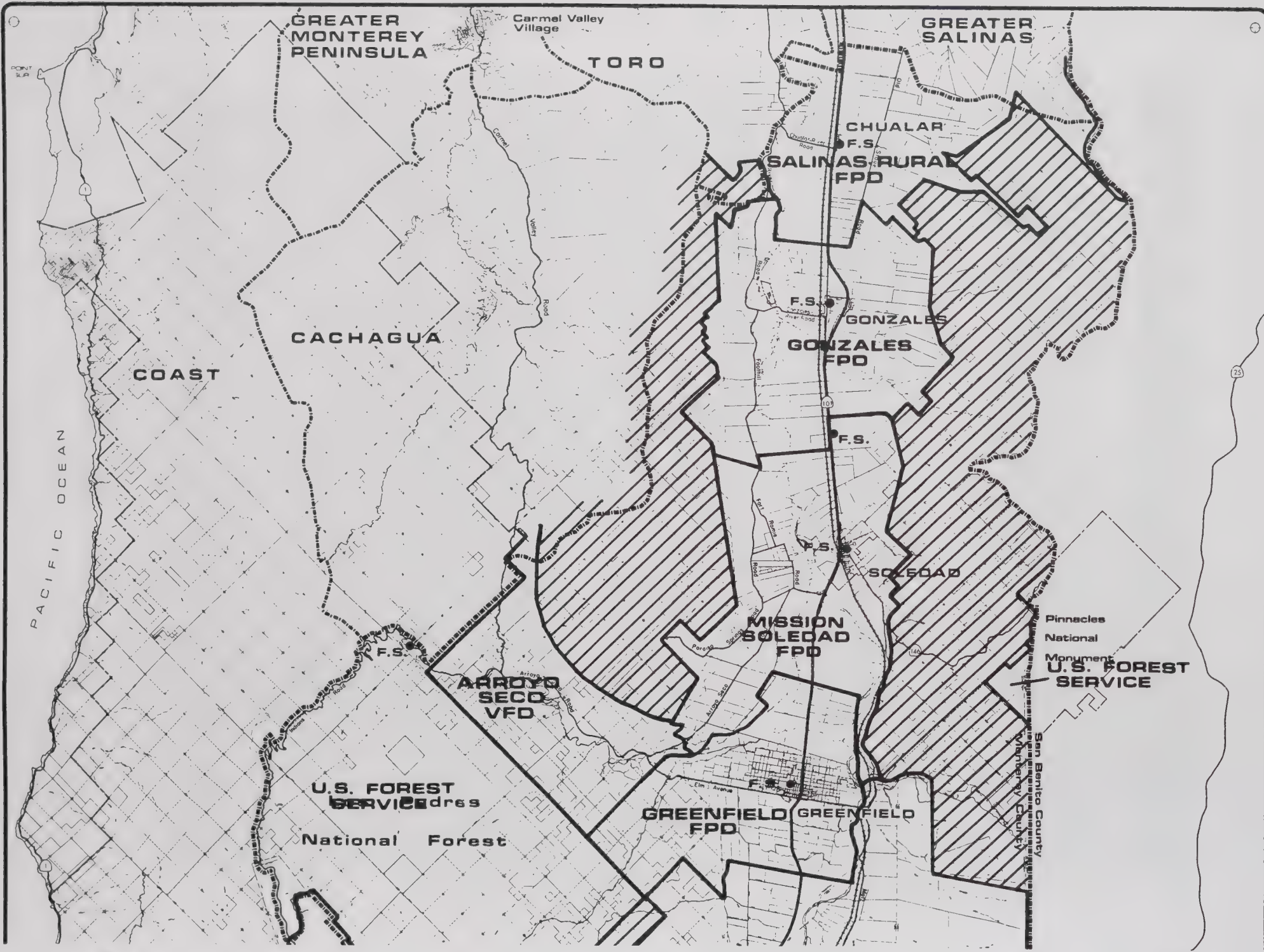
Fire protection services in the Central Salinas Valley are provided by four fire protection districts and one County service area: Gonzales, Greenfield, Mission Soledad, Salinas Rural, and County Service Area 61. These providers cover most of the valley floor between the Gabilan and Santa Lucia Mountains. Figure 13 illustrates the boundaries of these districts as well as the areas where no organized structural fire protection exists.

Wildland and grassland fire suppression throughout the Planning Area is the responsibility of the California Department of Forestry (CDF) which maintains stations in King City and adjacent to the Soledad State Prison. The CDF also provides manpower and volunteer training service to County Service Area 61 by contract. The United States Forest Service has responsibility for fire protection within the boundaries of the Los Padres National Forest. Where response time can be significantly improved, the Forest Service and CDF have traded responsibility for certain lands within each other's jurisdiction.

The California Department of Forestry does not normally respond to structural fires. Its primary responsibility is the suppression of wildland fire. Consequently, several areas within the Planning Area are without any adequate protection from structural fires. The most serious of these is the Arroyo Seco Canyon which contains dozens of structures, many of which are summer cabins. Other such areas are Henry Sands Canyon east of Gonzales, Stonewall Canyon and Shirttail Canyon east of Soledad, upper Reliz Canyon southwest of Greenfield, and Peachtree Valley southeast of King City. High fire risks are being reduced somewhat as existing structures are brought into conformance with the Uniform Building Code and Uniform Fire Code. The impact of fires on lives and property can be further reduced through the extension of structural fire protection services where none currently exist. Development in such areas must be predicated on the provision of adequate structural fire protection.

Educational Facilities

Eight unified-public school districts operating twelve schools provide elementary level education to residents of the Central Salinas Valley. In addition, the Coalinga Unified School District serves the extreme southeast corner of the Planning Area. The Central Salinas Valley is also



GREATER
MONTEREY
PENINSULA

Carmel Valley
Village

TORO

GREATER
SALINAS

CHUALAR

F.S.
SALINAS RURAL
FPD

F.S.
GONZALES

GONZALES
FPD

F.S.

F.S.

SOLEDAD

MISSION
SOLEDAD
FPD

ARROYO
SECO
VFD

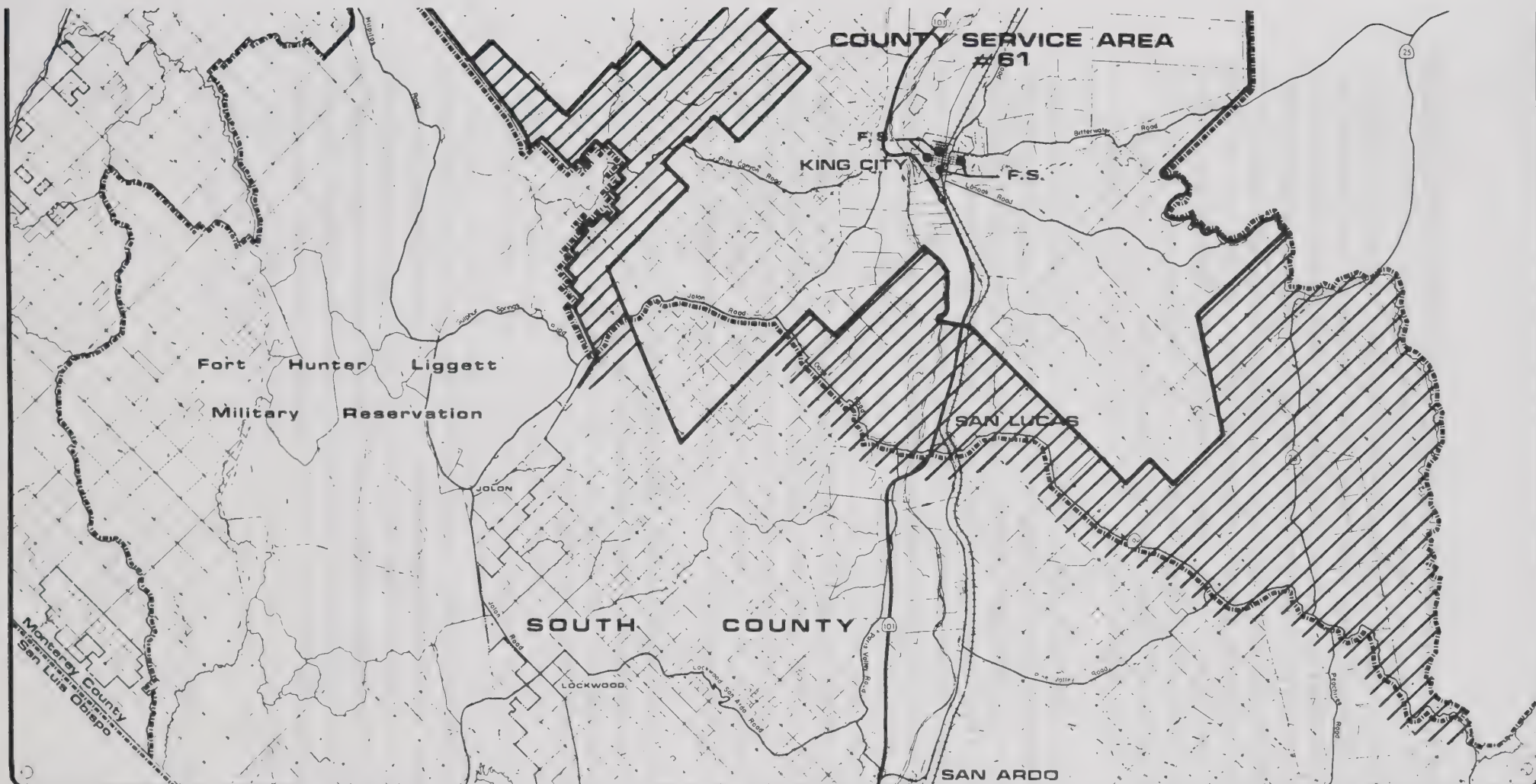
U.S. FOREST
SERVICE

National Forest

GREENFIELD
FPD

Pinnacles
National
Monument
U.S. FOREST
SERVICE

San Benito County
Sheriff's Office



CENTRAL SALINAS VALLEY PLANNING AREA

PLANNING AREA BOUNDARY ■■■■■

FIGURE 13

FIRE PROTECTION DISTRICTS

FPD FIRE PROTECTION DISTRICTS

VFD VOLUNTARY FIRE DEPARTMENT



AREAS WITHOUT ORGANIZED STRUCTURAL FIRE PROTECTION

F.S. FIRE STATION LOCATIONS



0 8000 16000
FEET
DECEMBER 1981



**SOURCES: CALIFORNIA DEPARTMENT OF FORESTRY;
MONTEREY COUNTY PLANNING DEPARTMENT, 1982.**

served by three high school districts. The Salinas Union High School District operates five high and junior high schools, four of which serve residents of the Planning Area. The Planning Area is also served by the Hartnell Community College District. The main campus of the college is on Homestead Avenue in Salinas. The agricultural campus is located at East Alisal Street and Bardin Road in Salinas. The district provides twice daily bus service between Salinas and King City as a free service to area residents attending Hartnell. Projections of future school enrollments by AMBAG indicate that unless additional facilities are constructed, school districts in the Central and South Salinas Valley will be 1,300 students above capacity by the year 1990. By the year 2000 Central/South Salinas Valley school districts are expected to be 3,500 students over capacity. To achieve 27 students per classroom, 130 new classrooms will be required in the Central Salinas Valley and South County Planning Areas.¹⁰

Health Services

Central Salinas Valley is served by four acute care hospitals. Only one of these, George L. Mee Memorial Hospital in King City, is in the Planning Area. Also serving the Planning Area are Salinas Valley Memorial, Alisal Community Hospital, and the County's Natividad Medical Center, all located in Salinas. These hospitals have capacities of 33, 211, 42, and 246 beds, respectively. Mee Memorial also provides the only licensed nursing care facility in the Planning Area with nine beds.

The County Health Department offers several non-emergency health programs to residents of the Central Salinas Valley. Among these are child health screening clinics which are held regularly in Gonzales and King City, communicable disease control, emergency and disaster services, environmental health services, health services for the elderly, maternity and prenatal services in Gonzales and King City, mental health services, and community health field services.

The Rural Health Project is a private, non-profit health provider serving the residents of the Planning Area through clinics in King City and Soledad. Transportation is provided for those otherwise unable to reach the clinics. The Soledad Ambulance Service also provides emergency care and transportation to Planning Area residents.

Social Services

Social services are provided in the Planning Area by two branch offices of the County Social Services Department located at 1000 Division Street in King City, and 1025 State Street in Soledad. The Department provides its services into benefit payment programs and social work services. The former provides direct aid payments to individuals and families in need, including families with dependent children, general assistance, food stamps, and medicare. The latter provides information and counseling for social and health problems, as well as counseling for veterans and the unemployed.

10. AMBAG, Draft Systems Capacity Analysis (June, 1986), p. 57.

County Library Services

The Central Salinas Valley is served by four public libraries. The libraries located in Gonzales, Greenfield, and Soledad are branches of the County library system. The King City Public Library is operated by the City with some services contracted from the County. The County Library System also operates a mobile library with 9,274 volumes. This service operates 25 hours a week making three regular weekly stops in Chualar and one in Pine Canyon.

Park and Recreational Facilities

Residents of the Central Salinas Valley have access to a variety of recreational opportunities including community and regional parks, National forests and National monuments.

The cities of Gonzales, Soledad, and King City have local parks. Gonzales has two such community parks. King City, in addition to its community parks, is the site of a County regional park, San Lorenzo County Park, the County Fairgrounds, rodeo grounds, and a golf course. San Lorenzo County Park contains a history center and a agricultural history museum supplementing more conventional park facilities. Two other regional recreational facilities, Pinnacles National Monument and the Los Padres National Forest, are also located in the Planning Area. The Pinnacles, located east of Soledad along Highway 146, provides opportunities for picnicking, hiking, and other day use activities. The Los Padres National Forest also provides a variety of outdoor recreational possibilities including swimming, tubing, fishing, hiking and picnicking. Overnight camping is provided in the Los Padres National Forest and at private camp grounds nearby.

Domestic Water Services

About 80% of the housing units in the Central Salinas Valley are connected to a public or private water system that provides service to six or more households. Table 16 shows more specifically that about 99% of the housing units in the incorporated cities are connected to a system while the majority of the households in the unincorporated area reported private wells as their source of water. These statistics confirm the location of the major water purveyors in the Planning Area. The cities of Gonzales, Soledad, and Greenfield are served by municipal water districts while the City of King is served by the investor owned California Water Service. The Pine Canyon Area west of King City is served by the Little Bear Water Company, which is also investor owned. The Fred's Camp area of Arroyo Seco is supplied by the Arroyo Center Water Company. The unincorporated communities of Chualar and San Lucas are provided water through County Special districts. Mutual water companies and private wells supply the other areas in the Central Salinas Valley. Not surprisingly, all the communities in the Planning Area with a significant population density are provided water through an organized system with more than 50 connections. The source of water for all these purveyors is groundwater. Increased consumption of groundwater by these water purveyors will exacerbate the overdrafting of groundwater resources.

The 1980 Census also reported 117 housing units as obtaining water from sources other than wells or public or private systems. The Census also indicated that there were 210 housing units that lacked complete plumbing facilities.

Wastewater Facilities

Wastewater treatment facilities are necessary where soil conditions or densities are not suitable for septic tank or cesspool treatment of wastewater. Table 16 indicates that roughly three quarters of Planning Area housing units are served by a public sewer system. This is an unusually high proportion for a large, predominantly rural area, however the Table also reflects how this is possible due to the concentration of sewer service and development within Planning Area cities. About 98% of the housing units in the incorporated areas are served by public sewer systems compared to only 34% for the unincorporated area. The remainder of Central Salinas Valley households are primarily served by cesspools and septic tanks. The Census reported 134 housing units which relied on other, illegal means of sewage disposal, such as an individual sewer line running to a creek or stream, units with a privy, or other means. Currently, eight wastewater treatment facilities are serving the sewered areas of the Planning Area, as shown on Table 17. The cities of Gonzales, Greenfield, King, and Soledad are served by municipal facilities while Chualar is served by a County sanitation district. Portions of Pine Canyon are served by a private treatment facility. The California Department of Corrections operates a facility for the Soledad State Prison. Table 17 also shows that three of these facilities are currently exceeding 75% of their design capacity. Facilities operating in excess of this level of capacity are generally considered ready for expansion and unable to accommodate more service. Table 17 also shows that four of the six facilities provide only primary treatment.

An analysis recently completed by AMBAG projected that the population in the Planning Area in the year 2000 would exceed the existing sewer capacity by about 5,600 persons.¹¹ Wastewater treatment for these persons should be provided by new septic systems, onsite treatment facilities, or expanded wastewater treatment facilities.

Solid Waste Disposal

Solid waste in the Planning Area is disposed of at the solid waste disposal sites at Johnson Canyon and Jolon Road. These sites are operated by private operators under permit from the County Health Department in accordance with the County Solid Waste Management Plan. The Johnson Canyon facility is owned by the County and encompasses about 122 acres. Collection and disposal services to this facility are provided by the Rural Garbage and Dispos-All Service Co., which serves the area north of Greenfield. The Jolon Road facility, leased by the County, covers 496 acres with collection and disposal services provided by the King City Disposal Service Inc., serving the area south of Greenfield and Arroyo Seco. Both of these facilities are expected to remain in operation past the year 2000.

11. AMBAG, Systems Capacity Analysis (June 1986), p. 44.

TABLE 16
SOURCE OF WATER AND TYPE OF SEWAGE TREATMENT
FOR CENTRAL SALINAS VALLEY HOUSING UNITS

Area (Census Tract)	Housing Units	SOURCE OF WATER			% on Public or Private System	MEANS OF SEWAGE DISPOSAL			% on Sewer System
		Public/Private Water System	Well Source	Other Source		Public Sewer System	Septic Tank or Cesspool	Other Means	
Census Tract 108	1,745	1,259	429	27	73%	1,227	432	56	71%
Unincorporated	862	406	407	27	48%	378	419	43	45%
Gonzales	883	853	22	0	98%	849	13	13	98%
Census Tract 109	16	16	0	0	100%	16	0	0	100%
Unincorporated	16	16	0	0	100%	16	0	0	100%
Census Tract 111	1,972	1,631	318	11	93%	1,598	340	22	82%
Unincorporated	525	211	285	8	41%	186	316	12	36%
Soledad	1,446	1,420	33	3	98%	1,412	24	10	98%
Census Tract 112	1,729	1,362	346	9	79%	1,337	360	20	78%
Unincorporated	503	156	330	5	31%	127	344	20	26%
Greenfield	1,226	1,206	16	4	99%	1,210	16	0	99%
Census Tract 113	2,923	2,454	363	70	85%	2,212	639	36	77%
Unincorporated	977	514	357	70	53%	285	629	27	29%
King City	1,946	1,940	6	0	99%	1,927	10	9	99%
Total Planning Area	8,385	6,722	1,456	117	80%	6,390	1,771	134	76%
Unincorporated	2883	1092	1094	102	38%	806	1392	90	28%
Cities	5501	5419	77	7	99%	5398	63	22	98%

TABLE 17
WASTE WATER TREATMENT PLANTS IN CENTRAL SALINAS VALLEY

Wastewater Treatment Provider =====	Service Area =====	Treatment =====	Percent of Capacity =====
Municipalities =====			
City of Gonzales	Gonzales	Primary	72%
City of Greenfield	Greenfield	Primary	60%
City of King	King City	Primary	63%
City of Soledad	Soledad	Primary & Secondary	68%
Special Districts =====			
Chualar County Sanitary District	Chualar	Primary	66%
State =====			
California Department of Corrections	Soledad Prison	Secondary	89% +
Private =====			
Sierra Vista Properties - Little Bear Water Company	Pine Canyon	Primary +	100%

Note: + indicates plants exceeding 75% design capacity.

Sources: Central Coast Regional Water Quality Control Board, 1980
City of King, 1987

Gas and Electric Services

Electrical power and natural gas service in Monterey County is provided by the Pacific Gas and Electric Company (PG&E). PG&E is an investor owned utility company regulated by the Public Utilities Commission. Electrical transmission lines serving the Planning Area are generally above ground, but are being buried in new construction. Six electrical substations are located in Chualar, Gonzales, Soledad, King City, and on Camphora Road and Los Coches Road.

A natural gas transmission line parallels Highway 101 and provides gas to the incorporated cities and their adjacent areas, as well as Chualar. The community of San Lucas and the more rural areas of the Planning Area rely on other energy sources such as bottled butane and propane which is delivered to the home, electricity, wood, solar, and wind.

Television and Radio Communication

Three television stations serve the Planning Area. Each station is affiliated with one of the major networks. Seventeen local radio stations, seven AM and ten FM, also serve the County. All of these may be received with varying quality in the Planning Area.

Telephone Service

Telephone services are provided throughout the County by Pacific-Bell. The telephone lines in the Planning Area are generally above ground.

HOUSING

The Housing portion of this Area Plan, similar to the other other portions, is intended to expand upon the 1985 Housing Element of the County General Plan in a way that will enable the goals, policies, and programs of the 1985 Housing Element to apply more specifically to the Planning Area. This section contains more detailed information about the households and housing in the Central Salinas Valley than is found in the countywide Housing Element. Based on this information particular goals, policies, and programs of the Housing Element may find more applicability in addressing the specific housing concerns in the Planning Area.

Population trends and household data are important indicators of future housing demand with respect to number, size, and type of unit. When considered with respect to the condition of existing housing and housing affordability, this data can be used to indicate the most appropriate course of governmental action to insure that the housing needs of area residents are met. Population trends and demographic data for the Central Salinas Valley are discussed in the Human Resources portion of this Area Plan. Household and housing unit data are discussed below.

Household Characteristics

A variety of housing information from the 1980 U.S. Census is summarized in Table 18. The housing characteristics shows that the Planning Area contained 7,646 households, 68 % of which were located in the incorporated areas. The average household size in the Planning Area was 3.60 persons per household. The average household size in the unincorporated area was larger than in the incorporated cities at 3.76 versus 3.53 respectively. These average household sizes are larger than the County's average of 2.85 persons per household. Furthermore, average household size in the Planning Area has been increasing. The mid-decade census indicated that in 1975 the average household sizes in the unincorporated area and the cities were 3.73 and 3.46 respectively. This trend of increasing household sizes contrasts with stabilized or decreasing household sizes in the County's other planning areas.

The increase in household sizes may be attributed to a number of factors. The low median age of 23.3 in the Planning Area indicates a large percentage of children and young adults living at home. The age structure of the Planning Area also indicates that large household sizes may persist with almost 40% of the population being of child bearing age. Socio-cultural patterns may be another factor contributing to large household size. Larger families and the extended family system may account for the fact that 83% of the households in the Planning Area were families, compared to only 73% for the County as a whole. About 14% of the households were one-person households, with 42% of that figure being elderly persons living alone. The County as a whole had a higher percentage of one-person households, 21 %, but a lower percentage, 36%, of those households were the elderly living alone.

The indication of large household sizes in Central Salinas Valley may also be the result of escalating housing costs. The increase in housing prices over the past decade may have caused some families to "double-up" in one unit to share housing costs. Increases in rent may have caused young adults to remain with their parents rather than move out. Similarly, fixed income elderly may have opted to share a house rather than live alone. Large or shared households are in part responsible for the fact that 12,242 people, almost 40% of Planning Area residents, lived in over-crowded units. The average household size in overcrowded units was about six persons per household.

Other factors affecting overcrowding are size and number of housing units available. Overcrowding occurs when the dwelling units are too small to accommodate the size of the households or too few to serve the number of households in the area forcing families to "double up".

Housing Unit Data

In 1980, the Planning Area contained 8% of the County's housing stock, of which 5.3% was in the cities and 2.7% was in the unincorporated area. This 8% share of County housing was about the same as the 1970 share.

TABLE 18
SELECTED HOUSING INFORMATION FOR THE CSV

HOUSEHOLD CHARACTERISTICS

Area	Total Housing Units	Total Year-round Housing Units	Seasonal and Migratory Units	Vacant Year-round Total	Gross Vacancy Rate in Percent	Vacant for Sale	Vacant for Rent	Total for Sale/Rent	Effective Vacancy in Percent
Total Unincorporated within Planning Area	2,884	2,792	92	321	11.1%	15	90	105	3.7
Total Cities within Planning Area	5,501	5,449	52	274	5.0%	66	108	174	3.2
Total Planning Area	8,385	8,241	144	595	7.1%	81	198	279	3.4
Total County	103,557	103,236	321	7,502	7.3%	7,091	2,359	3,450	3.3

HOUSING CHARACTERISTICS

Area	Total Households	Family Households	Non-Family Households	One-Person Households	Female Head with Minor Age Children	One-Person 65+	Large Households 6+	Household Population	Persons Per Household	Population in Group Quarters	Owner Occupied Units	Renter Occupied Units
Total Unincorporated within Planning Area	2,471	2,058	413	340	109	136	482	9,299	3.76	3,309	1,325	1,446
Total Cities within Planning Area	5,175	4,275	900	758	419	322	833	18,262	3.53	233	2,670	2,505
Total Planning Area	7,646	6,333	1,313	1,098	528	458	1,315	27,551	3.60	5,541	3,695	3,952
Total County	95,734	70,211	25,523	20,183	6,643	7,230	6,768	272,425	2.80	18,019	50,794	44,940

HOUSING UNIT CHARACTERISTICS

Area	One Room	2-3 Rooms	4-5 Rooms	6+ Rooms	Median Size	Overcrowded Owner	Overcrowded Renter	Persons in Overcrowded Units	Average Household Size in Overcrowded Units	Units Without Plumbing	Units Without Plumbing and Overcrowded	Median Home Value	Median Home Rent
Total Unincorporated within Planning Area	76	819	1,211	686	4.3	120	604	4,505	6.21	96	41	\$67,153	\$196
Total Cities within Planning Area	160	1,368	2,649	1,272	4.4	466	865	7,753	5.82	77	51	\$61,507	\$191
Total Planning Area	236	2,187	3,860	1,958	4.4	586	1,469	12,258	5.96	73	92	\$63,099	\$189
Total County	2,597	20,618	47,694	32,327	4.7	3,137	6,583	54,466	5.60	917	314	\$86,500	\$263

Source: 1980 U. S. Census of Population.

According to the 1980 U.S. Census, there were about 8,385 year round housing units in the Central Salinas Valley Planning Area. This was an increase of 34% over the 1970 figure of 6,248. The cities experienced the majority of this increase with a 43% increase in housing units compared to 19% for the unincorporated area.

Among the housing units that were owner occupied, the median home size was 5.2 rooms. This figure was larger than than the county wide median of 4.7 rooms per home. The median number of persons living in owner occupied housing units was about 3.3. Among the housing units occupied by renters, the median number of rooms was 3.7. The median number of persons living in rental units was 3.4. This data indicates that while rental units generally had fewer rooms than those that were owner occupied, the number of people living in these units was greater.

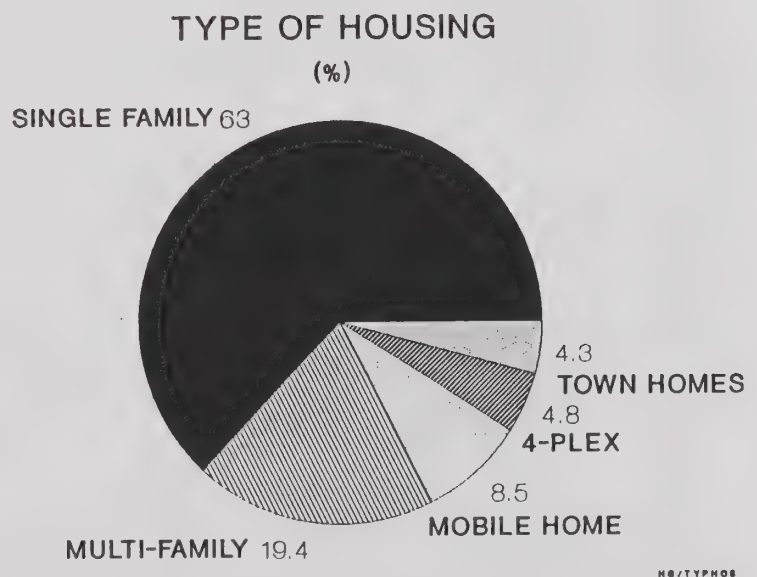
The Planning Area had an effective vacancy rate of 1% for units for sale, and 2.4% for rental units, for an overall vacancy rate of 3.3%. According to the State Department of Housing and Community Development, the overall effective vacancy rate should be approximately 4% for the market to operate effectively. A 2% vacancy rate for sale units is considered adequate while an adequate level for rental units is about 6%.

Types of Housing

The majority of housing units in the Planning Area, 63%, were detached single family homes. The next largest housing type was multi-family, or apartment units, making up 19.4% of the housing stock. Mobile homes comprised 8.5% of the housing stock. The housing type represented least in the Planning Area was multiple-family dwellings consisting of duplex, triplex, and fourplex units, with 4.8%, and townhouses at 4.3%. The major difference in housing types between the cities

and the unincorporated area was that that the cities tended to have more multiple-family units than the unincorporated area. Conversely, mobile homes were more prevalent in the unincorporated areas.

Farm labor camps are also a significant source of housing in the Planning Area. The County Health Department currently permits 28 labor camps in Central Salinas Valley capable of housing 1,041 people. However, other studies have estimated the number of farm labor housing units to be much larger. Many labor camps have been offered as rental housing units



available to the general public, thus removing them from the Health Department Inspection Roster. Additionally, smaller camps housing either four employees or two families, or less, were considered part of a farming operation and were therefore, not recorded as labor camps. With 47% of the Planning Area's population employed in the agricultural industry, it can be expected that farm labor camps are a significant source of housing. The 1980 Census reported 144 seasonal and migratory units in the Planning Area, the majority of which were probably built as farm labor housing.

Shifts in agricultural production methods and the type of work force needed have given rise to a housing problem for farm laborer families. Barracks which were originally intended for seasonal workers and single men have been converted to year round family use. This change in tenure has led to a rapid deterioration of farmworker housing. The inadequacies of existing farm labor camps have been repeatedly documented in farmworker, housing surveys conducted in Monterey County. The County Growth Management Task Force reported in 1979 that a major portion of the low income families in the Valley are farmworkers. Many of these families are housed in existing farm labor camps that are deteriorating and generally are in poor condition. Farmworker households are by far the largest single group with long-standing and severe unmet housing needs.

Housing Tenure

The proportion of renter-occupied and owner-occupied housing units within the Planning Area as a whole was fairly even, about 51.7% and 48.3% respectively. Within the cities, the figures were 48.4% and 51.6% renter-occupied and owner-occupied, and 58.6% to 41.4% in the unincorporated area respectively. The larger proportion of renters in the unincorporated area of Central Salinas Valley contrasted with the County's other planning areas where the majority of households in the unincorporated area were owner-occupied. The larger percentage of renters in the Planning Area may be due in part to the large number of farm laborers renting in the unincorporated area.

Condition of Housing Stock

Although U.S. Census reports no longer contain statistics on dilapidated housing, statistics describing the lack of standard facilities such as plumbing are a viable indicator of sub-standard units. Overcrowding may also cause a structure to deteriorate more rapidly. Table 19 indicates the number of housing units in the Planning Area which can be considered sub-standard. Table 19 shows that a significant proportion of housing units lack adequate plumbing or heating facilities.

Table 19**SUB-STANDARD HOUSING IN CENTRAL SALINAS VALLEY**

	Year-Round Housing Units	Percent
Incomplete Kitchen Facilities	141	1.7%
Incomplete Plumbing	210	2.5%
Inadequate Heating	191	2.3%
Overcrowded	2,053	24.9%
Built Before 1950	2,589	31.4%

Housing conditions can also depend on the age of the structure. About 31% of the Planning Area's housing was built before 1950. By comparison, only 25.4% of the housing stock County-wide was built before 1950. The 1981 AMBAG Housing Needs Report states that a disproportionate share of these substandard units are probably occupied by lower income farmworker families. Other groups most likely to live in substandard housing include low-income and elderly households.

Housing Costs

Housing affordability is usually described in terms of the percentage of households with incomes large enough to afford the median-priced new home.¹² Although interest rates and home financing packages are key determinants of housing affordability, income levels are the most important factor in determining the number and type of units which can be produced at prices affordable to Planning Area households. However, as previously mentioned, the majority of the Planning Area's households had incomes significantly below the County median income. About 47% of all Planning Area households were lower income, which is defined as 0 to 80% of the County median income. The unincorporated areas surrounding Gonzales and Greenfield had median household incomes that were only 75.8% and 78% of the County median, respectively. Household income levels for the Planning Area are presented in Table 14.

According to the 1980 Census, the median home value in the Planning Area was \$61,800, which is about 71% of the County's median home value of \$86,000. Within the Planning Area, the unincorporated area had a median home value of \$67,153; and in the incorporated cities the median home value was \$61,551. Lower home values in many portions of the Planning Area are probably due in part to the relatively low cost of land. The median monthly contract rent level

12. Seymore I. Schwartz and Robert A. Johnston, Local Government Initiatives for Affordable Housing (Institute of Governmental Affairs, U.C. Davis, 1981), p.3.

in the Planning Area of \$191 was the lowest of the County's eight planning areas, or about 73% of the county-wide median of \$263. Housing affordability ranges for lower income households in Monterey County, as projected by AMBAG, are shown in Table 20. Table 20 indicates that lower income households are not able to afford market rate housing in the Planning Area.

Table 20
Housing Affordability for Lower Income Families

	<u>Maximum</u> <u>Household Income</u>	<u>Affordable</u> <u>Rental Range</u>	<u>Affordable</u> <u>Sales Price Range</u>
1970:	\$0-\$7,784	\$0-\$162	\$0-\$19,460
1976:	\$0-\$9,484	\$0-\$198	\$0-\$23,710
1980:	\$0-\$14,720	\$0-\$307	\$0-\$36,800
1985:	\$0-\$18,188	\$0-\$380	\$0-\$45,470

Source: AMBAG, Housing Needs Report, February 1981.

Households paying more than 25% of their gross income for housing are considered to be overpaying for housing expenses. For the Central Salinas Valley, 25% of the median income households annual income amounted to \$3,912, or \$326 per month for housing expenses. While the median household income in 1980 generally seems sufficient to have afforded the median monthly contract rent, those who can least afford housing have the highest incidence of overpayment. The 1980 Census reported that of those renter households earning less than \$10,000, 88% paid more than 25% of their incomes for housing. Furthermore, 57% of these households paid more than 35% of their incomes. Of the renter households earning \$10,000 to \$19,999, 28% overpaid for housing; while among those households earning \$20,000 or more only 10.5% overpaid.

For those households wishing to buy a home in the Central Salinas Valley the "affordability gap" between the cost of purchasing a home and the amount of income available for housing is considerable. The median priced home in the Planning Area was about \$61,800. With a ten percent down payment and a ten percent fixed rate mortgage for thirty years, the monthly mortgage payments would be about \$540. This amount is well beyond what the median income household could afford to pay for housing expenses. It is unlikely that most lending institutions would lend to borrowers who's mortgage payments exceeded 25-30% of their monthly income. Most median-income households without a substantial down payment or existing equity are effectively unable to purchase a home. First-time homebuyers are the hardest hit by this situation.

Housing vacancy rates can also have an effect on housing prices. Housing supply is perhaps the most basic determinant of housing costs. A greater supply of housing reduces the demand for any particular unit, theoretically reducing costs. Unfortunately, the effective vacancy rate in the Planning Area has reached critical lows. Vacancy rates maintained at this level work to keep housing prices relatively high.

Table 21

NEW CONSTRUCTION NEED IN UNINCORPORATED CENTRAL SALINAS VALLEY

Household Growth (1980-1985)

3001	Estimated Households 1985 (AMBAG)
<u>-2466</u>	Households 1980 (U.S. Census)

535	New Households 1980-1985
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Housing Unit Growth

152	New Housing Units Built 1980-1985 (County Building Permit Records)
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Housing Unit Need

535	New Households
<u>-152</u>	New Housing Units
383	New Households Not Served by New Housing

Projected Household Growth 1985-2000

4260	Projected Households (AMBAG)
<u>-3001</u>	Estimated 1985 Households (AMBAG)

1259	Household Growth
<u>x1.04</u>	Addition of Vacant Units Needed for a Balanced Market (4%)

1309	New Units Needed
<u>+110</u>	Units estimated to be Demolished (.2% of housing stock annually)

1419	Units Needed to Account for Household Growth, Vacancy Rate, and Demolitions
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or	95	Units per Year
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Housing Supply

The existing conditions regarding overcrowding and vacancy rates indicate that a housing shortage exists in Central Salinas Valley. New housing construction should therefore exceed the formation of new households in the Planning Area. The Association of Monterey Bay Area Governments has estimated that by the year 2000, the Planning Area will contain 13,518 households, an increase of 5,872 new households. It is also estimated that about 72% of these households will reside within the boundaries of the Planning Area cities. Table 21 indicates that the new construction needs in the unincorporated area amounts to about 1,419 new housing units.

Fair Share

In compliance with Government Code Section 65584, AMBAG has determined that Monterey County's regional "fair share" of lower income households is 41.3% of all households. In order that the County can meet its regional obligation without concentrating lower income households in a particular area of the County, each planning area should attempt to develop 41.3% of its new housing to be affordable to lower income households. The 1980 U.S. Census reported that 3,612, or about 47%, of Central Salinas Valley households were lower income. Therefore, the Planning Area is currently accommodating more than its "fair share" of lower income households. AMBAG household projections estimate that the Planning Area's "fair share" of lower income households should be 4,389 by 1990, and assuming the regional fair share proportion remains unchanged, about 5,583 lower income households by the year 2000. The figures represent an annual increase of about 99 lower income households by the year 2000. The majority of the lower income households are expected to find housing in the Planning Area cities which can supply the infrastructure necessary to accommodate higher density affordable housing.

The unincorporated communities of Chualar and San Lucas are two areas wherein the County may be able to stimulate affordable housing projects for the Planning Area's lower income households. The County Housing Element currently designates Chualar as a Development Incentive Zone (DIZ) because of its relatively urban character and the existence of sewer and water systems. The San Lucas County Water District is presently working with County agencies to secure a sewage treatment system which could enable the community to accommodate urban density residential growth in the future. The County also supplies affordable housing through cooperative programs with the four incorporated cities in the planning area.

PART II: AREA PLAN

CHAPTER V: THE PLAN

THE CENTRAL SALINAS VALLEY AREA PLAN

The Area Plan focuses on the balancing of (1) present character and future needs, (2) conservation of resources and opportunities for development, and (3) the sentiments of local communities. The foundation of the Area Plan is the body of goals, objectives, and policies of the Monterey County General Plan. All of those goals, objectives, and policies shall apply to Central Salinas Valley and be supplemented by the Area Plan policies. The Central Salinas Valley Area Plan Land Use Plan shall supersede the 1982 Countywide Land Use Plan for the planning area. The Central Salinas Valley Area Plan is adopted as an amendment to the Monterey County General Plan and must be fully in conformity with the intent and philosophy of the Countywide General Plan.

Major assumptions and issues of the Central Salinas Valley Area Plan are stated herein.

ASSUMPTIONS

1. Agriculture such as farming and grazing will remain the leading industry in the Central Salinas Valley.
2. The preservation of viable agricultural land and the statements expressed in the Monterey County Growth Management Policy are the guiding principals used to develop the Area Plan.
3. The growth rate in the Central Salinas Valley Planning Area will follow historic growth patterns.
4. Residential, commercial, and industrial growth will continue to be concentrated within the Planning Area's four incorporated cities.
5. The cities of King, Greenfield, Soledad, and Gonzales will expand their jurisdictional boundaries and their spheres of influence.
6. Interest will continue in developing the area west of Chualar, and the Pine Canyon, River Road, Arroyo Seco, San Lucas, and Soledad Mission areas.
7. County, state, and federal standards for public health, safety, and welfare will not be changed significantly and will be judiciously administered and enforced.
8. Continued county, state, and federal budget limitations will restrain the future provision of public services.

9. Scenic qualities and open space in the Central Salinas Valley are a valued resource, worthy of protection.

ISSUES

Natural Resources

1. Considerable development pressure exists to convert valuable agricultural lands to urban uses, particularly around the incorporated cities. To what extent should these lands be preserved?
2. Encroachment of urban and agricultural land uses on natural areas is providing the greatest threat to native plant and animal life. What actions should be taken to protect native plant and animal species?
3. One of the Planning Area's premier assets is its vast land area devoted to open space land uses. How can this open space be used to conserve the County's natural resources and enhance its scenic qualities?
4. Chronic water shortages are occurring, raising the costs of water and, in some cases, forcing abandonment of the use of the land. What methods should be developed to increase water supply? What conservation practices should be initiated?
5. The location, extent, and type of rare and sensitive plant and animal populations within the Planning Area are largely unknown. What measures should be taken to obtain this information which will ultimately aid in the preservation of these resources?
6. Information is generally lacking on the Planning Area's archaeological resources. Many sites have been destroyed or permanently altered through development. How can the County encourage and require proper handling of these resources?

Environmental Constraints

1. Agricultural and urban land uses exist in flood hazard areas. To what extent should this practice be curtailed?
2. The Planning Area has a broad range of fire hazards. What policies should the County adopt to reduce these hazards?
3. Hazardous materials are stored, used, and transported throughout the Planning Area creating exposure risks. What action should the County take to ensure the safety of the public.

4. High nitrate and sulfur levels are causing health hazards and the closure of some domestic wells. What improved management practices need to be initiated?

Human Resources

1. Does economic growth in manufacturing and commercial areas necessarily mean a change in the Planning Area's basic rural character or agricultural land use?

Area Development

1. Where should growth occur in the Planning Area?
2. What methods are available to accommodate needed development while maintaining the area's rural, scenic character?
3. Low vacancy rates indicate a need to increase the housing supply. How can the County provide sufficient land for housing while still preserving land for agriculture and open space?
4. Development in the Planning Area occurs on one-acre and two-acre parcels. In the long term, this development pattern appears to be an inefficient way to develop residential land. Should the County encourage residential development at higher densities to create an adequate supply of affordable housing?
5. How can transit use and car pooling be increased or other measures taken to reduce energy consumption, parking demand, and air pollution in the Central Salinas Valley?
6. Much of the unincorporated area lacks organized fire protection. How can a minimum level of fire protection be provided?
7. Are there enough parks and recreation facilities within the Planning Area? If not, where are they needed most?
8. None of the proposed scenic routes in the 1982 General Plan have been designated. To what extent should this be carried out?

Supplemental Policies

Natural Resources

3.2.4 (CSV) Except in areas designated as either Medium or High Density Residential or in areas designated as either Commercial or Industrial where residential use may be allowed, the following formula shall be used in the calculation of maximum possible residential density for individual parcels based upon slope:

1. Those portions of parcels with cross-slope of between zero and 19.9 percent shall be assigned 1 building site per each 1 acre.
2. Those portions of parcels with a cross-slope of between 20 and 29.9 percent shall be assigned 1 building site per each 2 acres.
3. Those portions of parcels with a cross-slope of 30 percent or greater shall be assigned zero building sites.
4. The density for a particular parcel shall be computed by determining the cross-slope of the various portions of the parcel, applying the assigned densities listed above according to the percent of cross-slope, and by adding the densities derived from this process. The maximum density derived by the procedure shall be used as one of the factors in final determination of the actual density that shall be allowed on a parcel.

Where an entire parcel would not be developable because of plan policies, an extremely low density of development should be allowed.

Water Resources

5.1.2.0 (CSV) Areas identified by the County as prime-groundwater recharge areas shall be preserved and protected from sources of pollution. Development in prime-groundwater recharge areas shall be restricted to land uses which will not cause groundwater contamination as determined by the Director of Environmental Health.

- 5.1.2.1 (CSV) Development shall be designed to maintain groundwater recharge capabilities on the property.
- 5.1.2.2 (CSV) The County should identify and protect areas in the Central Salinas Valley which are valuable for the purposes of either natural- groundwater recharge or the development of artificial-groundwater recharge projects. Development shall not diminish the groundwater recharge capabilities of such areas, especially those which are highly susceptible to water quality degradation because of either high water tables or rapid percolation rates. Existing agricultural land uses in such areas should be maintained to preserve groundwater quality.
- 5.1.2.3 (CSV) The main channels of the Arroyo Seco River and the Salinas River shall not be encroached on by development because of the necessity to protect and maintain these areas for groundwater recharge, preservation of riparian habitats, and flood flow capacity.
- 6.1.3 (CSV) New development shall be phased to ensure that existing groundwater supplies are not committed beyond their safe-long term yields in areas where such yields can be determined by both the Director of Environmental Health and the Flood Control and Water Conservation District. Development levels which generate a water demand exceeding the safe-long term yields of local aquifers shall only be allowed when additional-satisfactory water supplies are secured.
- 6.2.2. (CSV) The County shall place a high priority on water development projects which can offer a viable water supply to water deficient areas in the Central Salinas Valley.

Objective

- 6.3.1 (CSV) Prepare an integrated, basin-wide, long-range water-resource plan for the County by 1992.
- 6.3.2 (CSV) New development which will have a high water use potential should be approved in accordance with an integrated, basin wide, long-range-water-resource plan which will be developed by the County.

Environmentally Sensitive Areas

- 11.1.6 (CSV) The County should identify environmentally sensitive habitat areas which are unique, limited, and fragile resources; and promote conservation of these habitat areas within the Central Salinas Valley.

Archaeological Resources

- 12.1.8 (CSV) The Central Salinas Valley Archaeological Sensitivity Map shall be used to identify archaeological resources within the Planning Area. The map shall be updated when new information becomes available.

Energy Resources

- 14.3.1 (CSV) The County should encourage energy-efficient business and agricultural practices.
- 14.3.2 (CSV) The County should encourage the development and utilization of renewable energy sources such as solar, wind generation, and biomass technologies in the Central Salinas Valley.

Environmental Constraints

Seismic, Flood, and Fire Hazards

- 15.1.1.1 (CSV) The Central Salinas Valley Seismic Hazards Map shall be used to delineate high seismic hazard areas addressed by the countywide General Plan. Areas shown as moderately high, high, and very high hazard shall be considered as "high hazard" areas for the purpose of applying General Plan policies. The map may be revised when new accepted geo-technical information becomes available.
- 16.2.1.1 (CSV) Site plans for new development shall indicate all flood plains, flood hazards, perennial or intermittent streams, creeks, and other natural drainages. Development shall not be allowed to occur within these drainage courses nor shall development be allowed to disturb the natural banks and vegetation along these drainage courses, unless such disturbances are approved by the Flood Control and Water Conservation District. Development shall adhere to all regulations and ordinances related to development in flood plains.
- 16.2.1.2 (CSV) Increased stormwater runoff from urban development shall be controlled to mitigate impacts on agricultural lands located downstream.
- 17.4.13 (CSV) The Central Salinas Valley Fire Hazards Map shall be used to identify areas of high and very high fire hazards for the purpose of applying General Plan policies regarding fire.

Water Quality

- 21.1.2.1 (CSV) Groundwater recharge areas must be protected from all sources of pollution. Groundwater recharge systems shall be designed to protect groundwater from contamination and shall be approved by both the Director of Environmental Health and the Flood Control and Water Conservation District.
- 21.1.2.2 (CSV) The County shall encourage participation in a program to manage irrigation run-off that might adversely affect water quality.
- 21.3.1.4 (CSV) Development shall meet both water quality and quantity standards expressed in Title 22 of the California Administrative Code and Title 15.04 of the Monterey County Code subject to review of the Director of Environmental Health.
- 21.3.1.5 (CSV) New development shall meet the minimum standards of the Regional Water Quality Control Basin Plan when septic systems are proposed. The minimum lot size shall be one acre. New development shall provide evidence to the Director of Environmental Health that any proposed septic systems will not adversely affect groundwater quality. Inclusionary and clustered housing shall also meet the 1 acre/unit density when septic systems are proposed.

Area Development

Land Use

- 26.1.4.2 (CSV) Property owners in the Arroyo Seco area must undertake a land suitability study for their property before development proposals can be reviewed by the County. The study shall be prepared by a consultant chosen by the County, but funded at the expense of the property owner. The scope and specificity of the study shall be sufficient to address the magnitude of the development which will be proposed. The study shall address:
1. hydrology; including depth to groundwater, sustained water yield in terms of quality and adequate quantity, and conditions of the aquifer;
 2. sewage disposal solutions including nitrate and chemical loading on the aquifer; the effects of wastewater reclamation if proposed; and how the sewage disposal system meets the standards of the Regional Water Quality Control Basin Plan and the California

Administrative Code; and

3. soils; including percolation tests, geology, drainage, and runoff.

26.1.4.3 (CSV)

A tentative map application for either a standard or minor subdivision shall not be deemed complete until:

- (1) an applicant provides proof of an assured, long-term water supply in terms of sustained yield and adequate quality for all lots which are proposed to be created through subdivision. The water supply must meet both water quality and quantity standards expressed in Title 22 of the California Administrative Code and Title 15.04 of the Monterey County Code subject to review of the Director of Environmental Health, and
- (2) an applicant provides proof that sewage disposal systems, both individual and package, for all lots which are proposed to be created through subdivision will not exceed nitrate and chemical loading levels in aquifers pursuant to the Regional Water Quality Control Basin Plan. If wastewater reclamation is proposed for a subdivision, the reclamation system must comply with the Basin Plan and the California Administrative Code subject to the review of the Director of Environmental Health.

26.1.6.1 (CSV)

Development shall have appropriate review where it is permitted in sensitive or highly sensitive areas as shown on the Scenic Highways and Visual Sensitivity Map.

26.1.13.1 (CSV)

Development of any kind on the Broome property in Chualar, APN 145-011-08, shall require the following conditions of approval:

1. All land which is designated for "Public/Quasi Public" land use on the Land Use Plan shall be dedicated to the Chualar Union School District for school expansion;
2. A permanent, open space easement shall be dedicated to the County along the entire eastern and southern boundaries of any developed property. The open space easement shall be maintained as a greenbelt and shall function as a well- defined buffer to avoid conflicts between residential and agricultural land uses;
3. A permanent, agricultural conservation easement shall be dedicated to the County on all farmland adjoining any developed property;

4. The developer shall fund all costs necessary to expand both the Chualar County Sanitation District and the Chualar County Water District to support new development; and
5. On the Broome property, not more than 4 acres may be developed at a density of not more than "18 units/acre" only if all of the units are constructed to serve low income persons.

- 26.1.13.2 (CSV) The County staff shall review proposals for annexation and pre-zoning by the Central Salinas Valley Cities to ensure the protection of prime farmland.
- 26.1.14.1 (CSV) The County shall actively pursue cooperative land use planning with Central Salinas Valley Cities especially with regard to city expansion, watershed management, water resources planning, and soil conservation. The planning shall include the designation of areas of Urban Reserve adjoining existing Spheres of Influence and their accurate placement on the Planning Area land use maps.
- 26.1.14.2 (CSV) The County shall protect prime, productive farmland adjoining Central Salinas Valley Cities by designating less viable farmlands adjoining the Cities with an Urban Reserve overlay designation. The County shall discourage annexation of prime, productive farmlands adjoining Central Salinas Valley Cities if less viable farmlands are available for annexation and urban expansion.
- 26.1.14.3 (CSV) The County and Central Salinas Valley Cities shall cooperatively plan for the orderly, contiguous growth of the Cities, consistent with the ability of the respective Cities to provide urban-type services and facilities.
- 27.2.3 (CSV) The County should consider working with the Southern Pacific Railroad and the Public Utilities Commission to provide a railroad crossing at the northwest end of Main Street in San Lucas.
- 28.1.1.1 (CSV) Recreation and visitor serving land uses for the Paraiso Hot Springs property may be permitted in accordance with a required comprehensive development plan. The resort may include such uses as a lodge, individual cottages, a visitor center, recreational vehicle accommodations, restaurant, shops, stables, tennis courts, aquaculture, mineral water bottling, hiking trails, vineyards, and orchards. The plan shall address fire safety, access, sewage treatment, water quality, water quantity, drainage, and soil stability issues.
- 28.1.1.2 (CSV) Recreation and visitor-serving commercial uses shall only be allowed if it

can be proven that:

1. areas identified by the Flood Control and Water Conservation District as prime-groundwater recharge areas can be preserved and protected from sources of pollution as determined by the Director of Environmental Health and the Flood Control and Water Conservation District;
2. proposed development can be phased to ensure that existing groundwater supplies are not committed beyond their safe-long term yields where such yields can be determined by both the Director of Environmental Health and the Flood Control and Water Conservation District;
3. the main channels of either the Arroyo Seco River or the Salinas River will not be encroached on by development because of the necessity to protect and maintain these areas for groundwater recharge, preservation of riparian habitats, and flood flow capacity as determined by the Flood Control and Water Conservation District;
4. the proposed development meets both water quality and quantity standards expressed in Title 22 of the California Administrative Code and Title 15.0.4 of the Monterey County Code as determined by the Director of Environmental Health;
5. the proposed development meets the minimum standards of the Regional Water Quality Control Basin Plan when septic systems are proposed and also will not adversely affect groundwater quality, as determined by the Director of Environmental Health; and
6. the proposed development will not generate levels of runoff which will either cause erosion or adversely affect surface water resources as determined by the Flood Control and Water Conservation District.

28.1.1.3 (CSV)

All recreation and visitor-serving commercial land uses shall require a use permit on sites of 10 acres or less. On sites greater than 10 acres, visitor serving recreation and commercial uses may be permitted in accordance with both a use permit and a required comprehensive development plan. The comprehensive development plan shall address hydrology, water quantity and quality, sewage disposal, fire safety, access, drainage, soils, and geology.

- 29.1.1.1 (CSV) Industries locating adjacent to San Lucas shall be non-polluting in nature. Industries related to agriculture shall be encouraged.
- 30.0.1.1 (CSV) The Old Mission Union School property, APN 165-033-02 & 165-073-16, shall be designated as a special treatment area. Winery-related facilities including a food service, gift shop, and a reception hall may be conditionally allowed by use permit in the special treatment area. The facilities shall be subject to the review and requirements of the Monterey County Public Works Department, Director of Environmental Health, Flood Control and Water Conservation District, and Director of Planning.
- 30.0.3.1 (CSV) Divisions of farmland shall be permitted only when such division does not adversely affect the land's long-term agricultural financial viability and shall be conditioned to ensure continued long-term agricultural use.
- 30.0.3.2 (CSV) The area bounded by Old Stage Road, Encinal Road, and Quail Creek; and the area south of Potter Road to a depth of 1,000 feet shall be designated as a "special treatment" area. The "special treatment" area shall permit on-site-soil-dependent agricultural greenhouses. The minimum parcel size in the area shall be 10 acres. Subdivision of land in the area shall only be approved subject to the following conditions:
- a. the residential development rights of parcels created through subdivision approval must be dedicated via an agricultural conservation easement to either the County or a qualified organization specified in Section 501(c) (3) of the Internal Revenue Code;
 - b. a drainage management plan for the entire "special treatment" area must be prepared to mitigate drainage impacts on adjoining farmlands;
 - c. the concrete foundations of all structures shall be the minimum allowed under the Uniform Building Code;
 - d. only agricultural land uses shall be allowed on subdivided parcels within the "special treatment" area;
 - e. one mobile home may be allowed for residential purposes for the exclusive use of caretaker or security personnel.
- 30.0.5.1 (CSV) The Lohr property, APN 109-271-02 & 03, shall be designated as a special treatment area to enable two-adjointing 20 acre parcels to be reconfigured into one 39 acre parcel, and one 1 acre parcel to enhance the

agricultural capabilities of the land. The Lohr property shall be rezoned to prohibit further subdivision. Deed restrictions shall also be implemented to prohibit further subdivision in the special treatment area.

30.0.8 (CSV)

Agricultural Support Services such as coolers, cold storages, loading docks, and farm equipment shops may be conditionally allowed by use permit on lands designated "Agricultural Farmlands 40 Acre Minimum." The following findings supported by substantial evidence must be made to obtain a use permit:

1. The land on which the support facilities are proposed is not suitable for cultivation because of irregular terrain, inadequate soil quality, or other physical constraints which limit agricultural productivity.
2. The proposed support facilities are a necessary accessory to the cultivation, harvesting, or processing of crops raised by the applicant on the same property where the support facilities are proposed.
3. The maintenance and operation of the proposed support facilities will not impair the ability to produce crops on either the remainder of the subject property or neighboring properties.

Agricultural Support Facilities shall be subject to the following standards as determined by the Director of Planning:

- a. Agricultural Support Facilities may be conditionally allowed in connection with the cultivation, harvesting, processing, or storage of crops grown on lands in close proximity to the subject property, especially when the maximum amount of prime farmland for production would be preserved, expanded, or enhanced.
- b. The land on which the support facilities are constructed shall not be subdivided from the remainder of the subject property.
- c. Agricultural Support Facilities shall be compatible with land uses on neighboring properties.

35.1.3 (CSV)

Conversion of uncultivated lands to crop lands shall not be permitted on slopes in excess of 25%.

35.1.4 (CSV)

Conversion of historically uncultivated lands to farmlands on parcels having an average cross slope of 15% - 25% shall require a use permit.

Approval of the use permit shall follow the submission of an adequate agricultural management plan. The plan should include an analysis of soils; erosion potential and control; water demand and availability; proposed methods of water conservation and water quality protection; preservation of important vegetation and wildlife habitats; crop rotation schedules; and such other means appropriate to ensure the long-term viability of agriculture on the parcel.

Holding Capacity

36.0.4 (CSV)

Except in areas designated as medium or high density residential, or in areas designated as commercial or industrial where residential uses may be allowed, an applicant wishing to apply for a subdivision under the countywide General Plan and Central Salinas Valley Area Plan must use the following procedures to calculate the maximum density that can be considered in order to prepare an application consistent with, or less than, the maximum allowable density:

1. One factor in density determination shall be the land use designation. The maximum density allowable under the Area Plan land use designation for a parcel shall be divided into the total number of acres found within the parcel. For example, a 100-acre parcel with a maximum density of 1 unit per 2.5 acres would have a density of 40 sites.
2. The slope of the property shall be determined and the slope density formula defined in Policy 3.2.4 applied. For example, a 100-acre parcel might consist of 50 percent of the land having a slope of over 30 percent and the other 50 percent below 19 percent. The maximum density allowable on that parcel as calculated according to slope would be 50 sites.
3. All of the policies of the Area Plan and countywide General Plan must be applied to the parcel. Any policies resulting in a decrease in density must be tabulated. This decrease in density would then be subtracted from the maximum density allowable under the slope formula.
4. The maximum density allowable according to the Area Plan land use designation (Step 1 above) and the maximum density allowable according to Plan policies (Step 2 and 3 above) shall then be compared. Whichever of the two densities is the lesser shall be established as the maximum density allowable under this Area Plan.

5. The calculations of maximum density made by an applicant will be reviewed during public hearings prior to the approval of any permits or quota allocation pursuant to this Area Plan.

Transportation

- 40.1.2 (CSV) The County shall pursue measures to obtain official Scenic Route designations from the state for Highways 146 and 25, Arroyo Seco Road, Bitterwater Road, and Elm Avenue.

Public Services and Facilities

- 46.1.2 (CSV) Emergency access issues within the Central Salinas Valley Planning Area should be identified and addressed before further development is allowed to occur.
- 51.2.5 (CSV) The County should study the feasibility of obtaining park sites such as the Greenfield Bridge area on the Arroyo Seco River.

Objective

- 62.2.1 (CSV) Designate the area within the San Lucas County Water District; the area located 1,280 feet to the immediate north of San Lucas; and the area located 500 feet to the immediate west of San Lucas as a Development Incentive Zone (DIZ) study area.
- 62.2.2 (CSV) The County shall evaluate the San Lucas Development Incentive Zone study area in conjunction with the scope of work for the San Lucas Sewage Treatment Plant. The evaluation shall also include consideration of all factors expressed in the 1985 Monterey County Housing Element.
- 62.2.3 (CSV) The County should develop a public services accounting system for growth areas to ensure that new development has sufficient sewage capacity and water availability.

Recreational Trails

- 51.1.4 (CSV) The County should implement a trails plan which shall consist of a Central Salinas Valley Trails map and policies. The Central Salinas Valley Trails Committee, appointed by the Board of Supervisors, shall refine the trails plan and supervise its implementation. The trails system shall be established for pedestrian, equestrian, and bicycling uses only. Unauthorized motor vehicles shall be prohibited from using the trails system.

- 51.1.5 (CSV) The dedication of recreational trail easements shall be encouraged where appropriate either for establishing a planned Central Salinas Valley trails system, or where an established trail is jeopardized by impending development.
- 51.1.6 (CSV) Recreational trail easements should be located within County-required easements of private roads.
- 51.1.7 (CSV) A land owner shall not be held responsible for either trail maintenance or public liability when a public-recreational trail easement is appurtenant to private land. Public-recreational trail easements shall not be required to be opened to public use until either a public agency or private association agrees to accept liability and responsibility for maintenance of the trail easement. The County shall implement necessary measures for services that cannot be adequately provided by private organizations. The implementation of such measures shall be funded by user fees and tax revenues.
- 51.1.8 (CSV) The County may, through the public hearing process, cancel its agreements with private landowners for existing, public-recreational trail easements under the following conditions:
- (1) the easement must not be used as an existing public-recreational trail easement, and
 - (2) the easement must not be a useful segment of the Central Salinas Valley trails system because of either its location or some other reason.
- 51.1.9 (CSV) The County shall enforce public access on legally established recreational public-recreational trail easements.

AREA LAND USE PLAN

The Central Salinas Valley Planning Area land use plan, as represented by Figure 14, is a graphic representation of the general distribution, location, extent, and intensity of future land uses and transportation routes in the planning area. The land use plan, which must be used in conjunction with countywide General Plan goals, objectives, and policies and the supplemental policies contained within this Area Plan, constitutes a "blueprint for the future" of Central Salinas Valley during the next 20 years. The land use plan represents the desires of the Central Salinas Valley community, as expressed by both the Central Salinas Valley Area Plan Citizens Advisory Committee and the opening philosophy of this document.

The Central Salinas Valley Area Plan is intended to provide refinement to the countywide General Plan in order to reflect local concerns which could not be addressed at the countywide level. However, policies and land use modifications contained within this area plan must be fully in consistent with the intent and overall direction of the countywide General Plan. Thus, modifications at the area plan level which require alterations in land use type or intensity must be fully in conformity with the General Plan's goals, objectives, and policies.

Preparation of the Land Use Plan

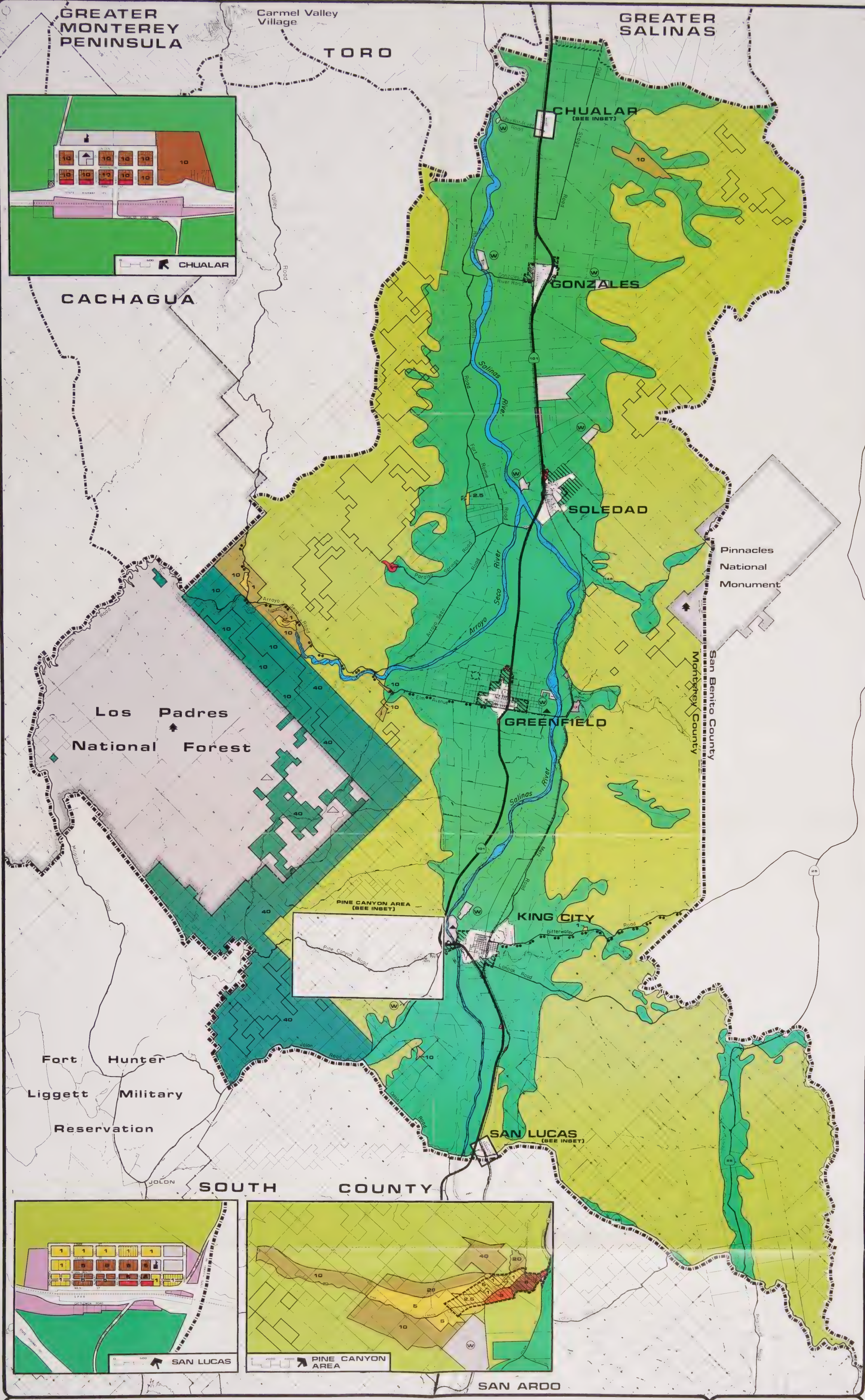
The land use plan was prepared after careful consideration of the various factors which are critical to the County's planning program. These factors include the countywide General Plan, the Growth Management Policy, the existing land use pattern which includes emerging growth centers in Central Salinas Valley, current subdivision activity, and the U.S. Forest Service plans for the Los Padres National Forest. Finally, aspects of the land suitability study were incorporated into land use and density decisions.

Land Suitability

The first step in developing the land use plan for the Central Salinas Valley Planning Area was a comprehensive study of the area's resources and environmental constraints. The best available information for the area was collected, studied, and mapped where appropriate. Some of the subjects of study were soil characteristics, geologic and seismic hazards, topography, vegetation, flood hazards, fire hazards, road capacities and access, water quality and availability, and public services.

Findings on these topics are summarized in the Inventory and Analysis section of this document.* The above factors were studied to determine the relative land suitability within the Planning Area for three broad categories of land use: farmlands, grazing, and development.

* The complete Central Salinas Valley Inventory and Analysis is available at the Monterey County Planning Department.



CENTRAL SALINAS VALLEY PLANNING AREA

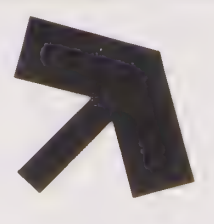
PLANNING AREA BOUNDARY

FIGURE 14
LAND USE PLAN

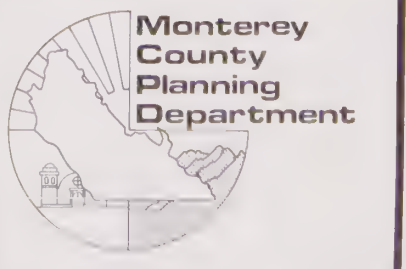
- | | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RESIDENTIAL
5 AC./UNIT
LOW DENSITY
5-1 AC./UNIT
MEDIUM DENSITY
1-5 UNITS/AC.
HIGH DENSITY
5-20 UNITS/AC. | AGRICULTURAL
FARMLANDS
40 AC. MIN.
RURAL GRAZING
10-160 AC. MIN.
PERMANENT GRAZING
40 AC. MIN. | RESOURCE CONSERVATION
RESOURCE CONSERVATION
10-160 AC. MIN.
RIVER AND WATER BODIES | PUBLIC/QUASI-PUBLIC | SCHOOL
EXISTING
PARKS AND RECREATION
EXISTING
PROPOSED
WASTE DISPOSAL
NATURAL RESERVE
OTHER FACILITIES | URBAN RESERVE | SPHERE OF INFLUENCE
EXISTING
TRANSPORTATION
HIGHWAY
EXISTING | MAJOR ARTERIAL
EXISTING
SCENIC ROUTE
EXISTING
RAILROAD
AIRPORT
INCORPORATED CITIES
LANDS ADMINISTERED
BY BUREAU OF LAND
MANAGEMENT
SPECIAL TREATMENT
AREA |
| COMMERCIAL
MAXIMUM BUILDING HEIGHT, 35 FEET; MAXIMUM
COVERAGE, 60% (EXCLUDING PARKING & LANDSCAPING). | | | | | | | |
| INDUSTRIAL
MAXIMUM BUILDING HEIGHT, 35-75 FEET; MAXIMUM LOT
COVERAGE, 60% (EXCLUDING PARKING & LANDSCAPING). | | | | | | | |
| MINERAL EXTRACTION | | | | | | | |

SOURCE: MONTEREY COUNTY PLANNING DEPARTMENT.

ADOPTED BY THE BOARD OF SUPERVISORS NOVEMBER 24, 1987.



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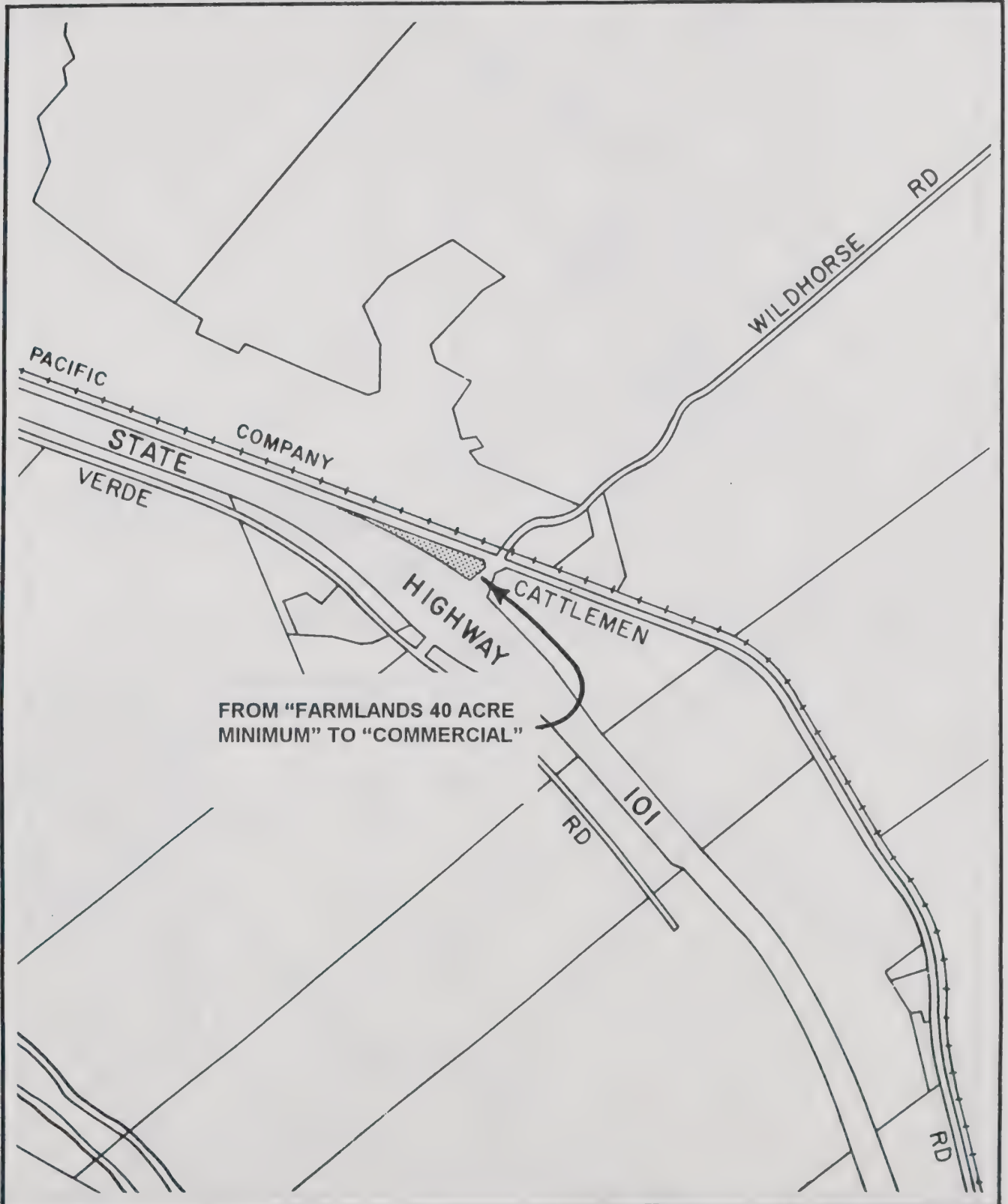


UPDATE INDEX #1

CENTRAL SALINAS VALLEY AREA PLAN

MAP CHANGE - APN 235-071-16

AUGUST 30, 1988



CENTRAL SALINAS VALLEY
AREA PLAN

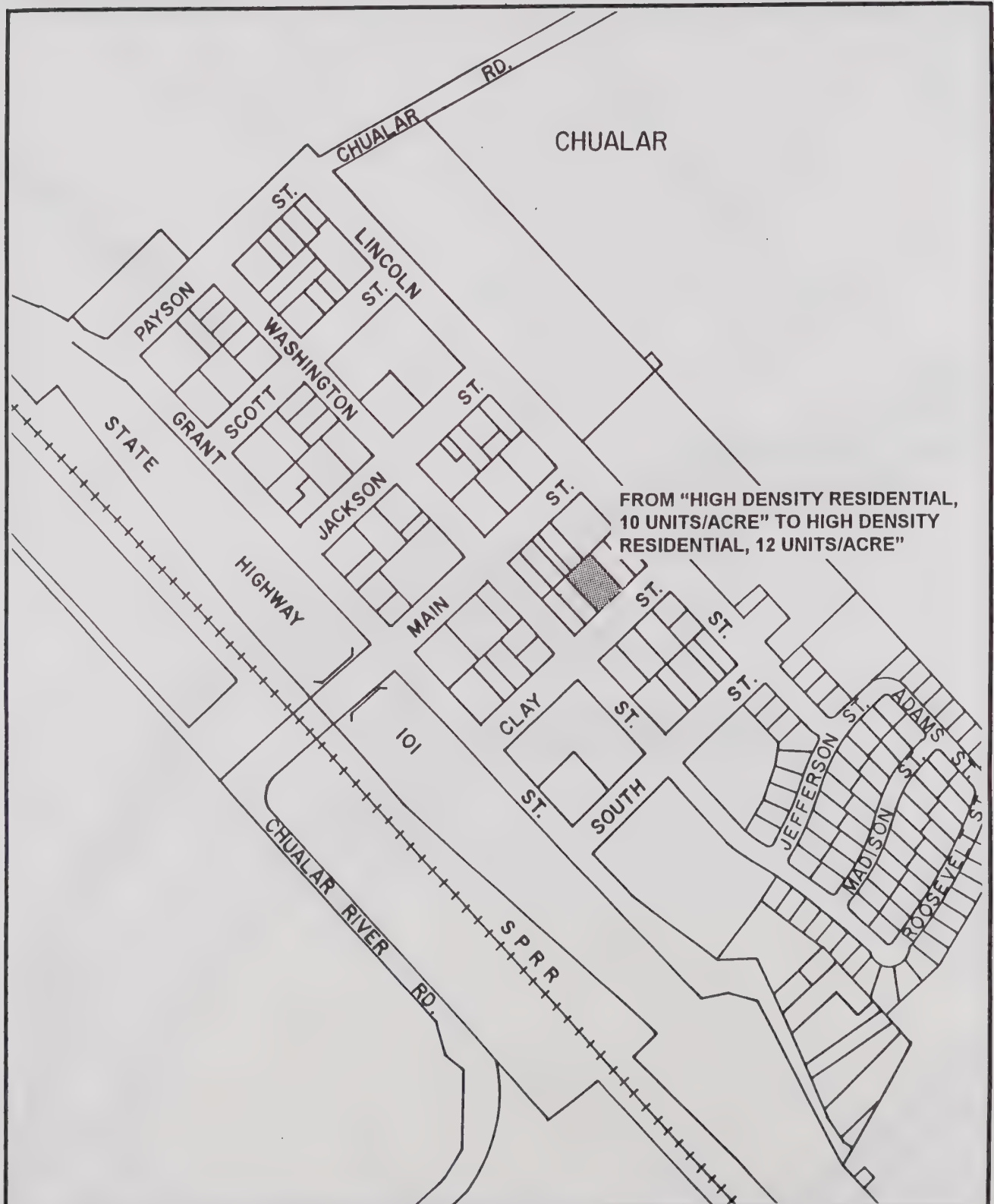


UPDATE INDEX #2

CENTRAL SALINAS VALLEY AREA PLAN

MAP CHANGE - APN 145-052-03, 04

DECEMBER 12, 1989



CENTRAL SALINAS VALLEY
AREA PLAN

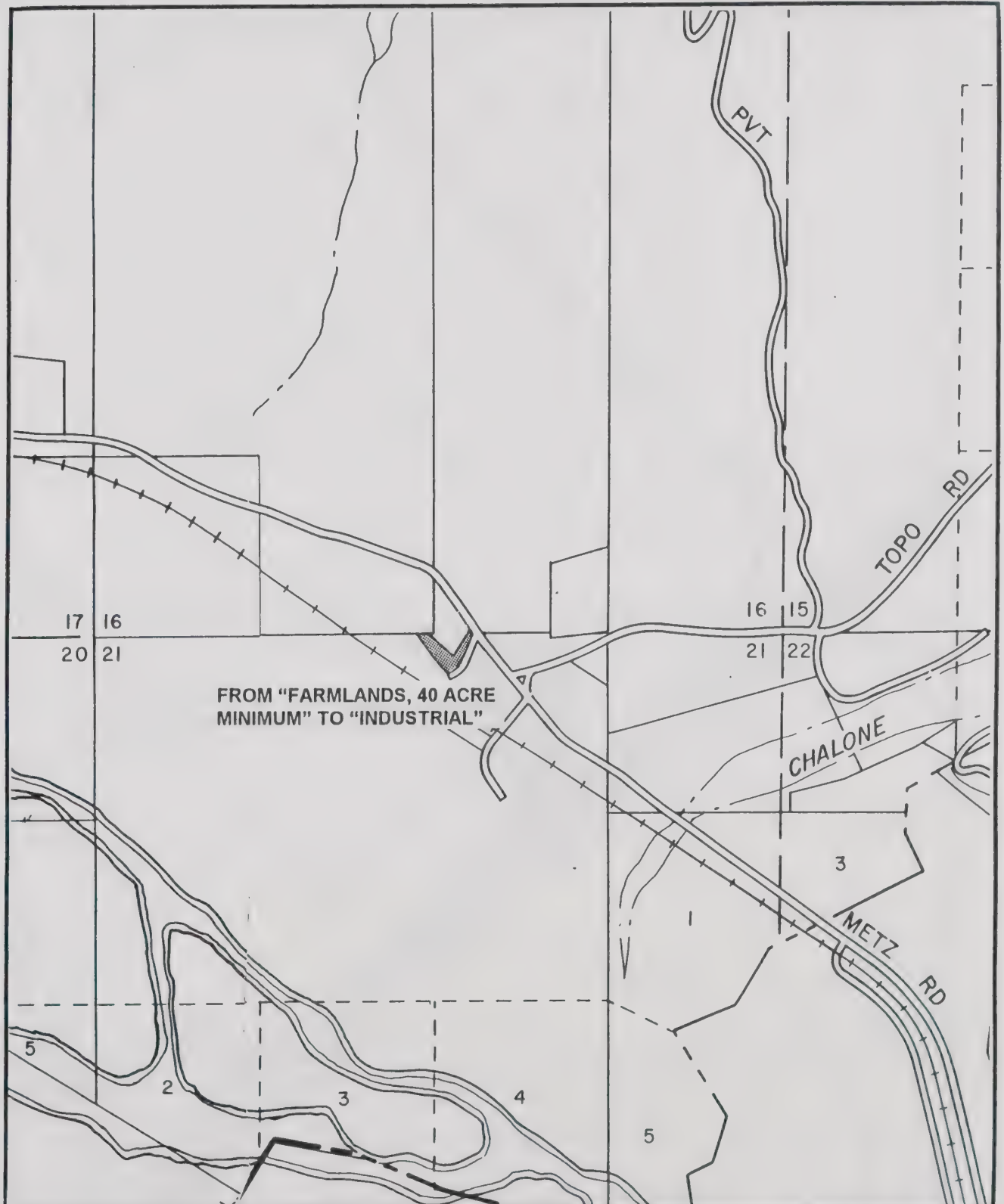


UPDATE INDEX #3

CENTRAL SALINAS VALLEY AREA PLAN

MAP CHANGE - APN 418-401-23

DECEMBER 12, 1989



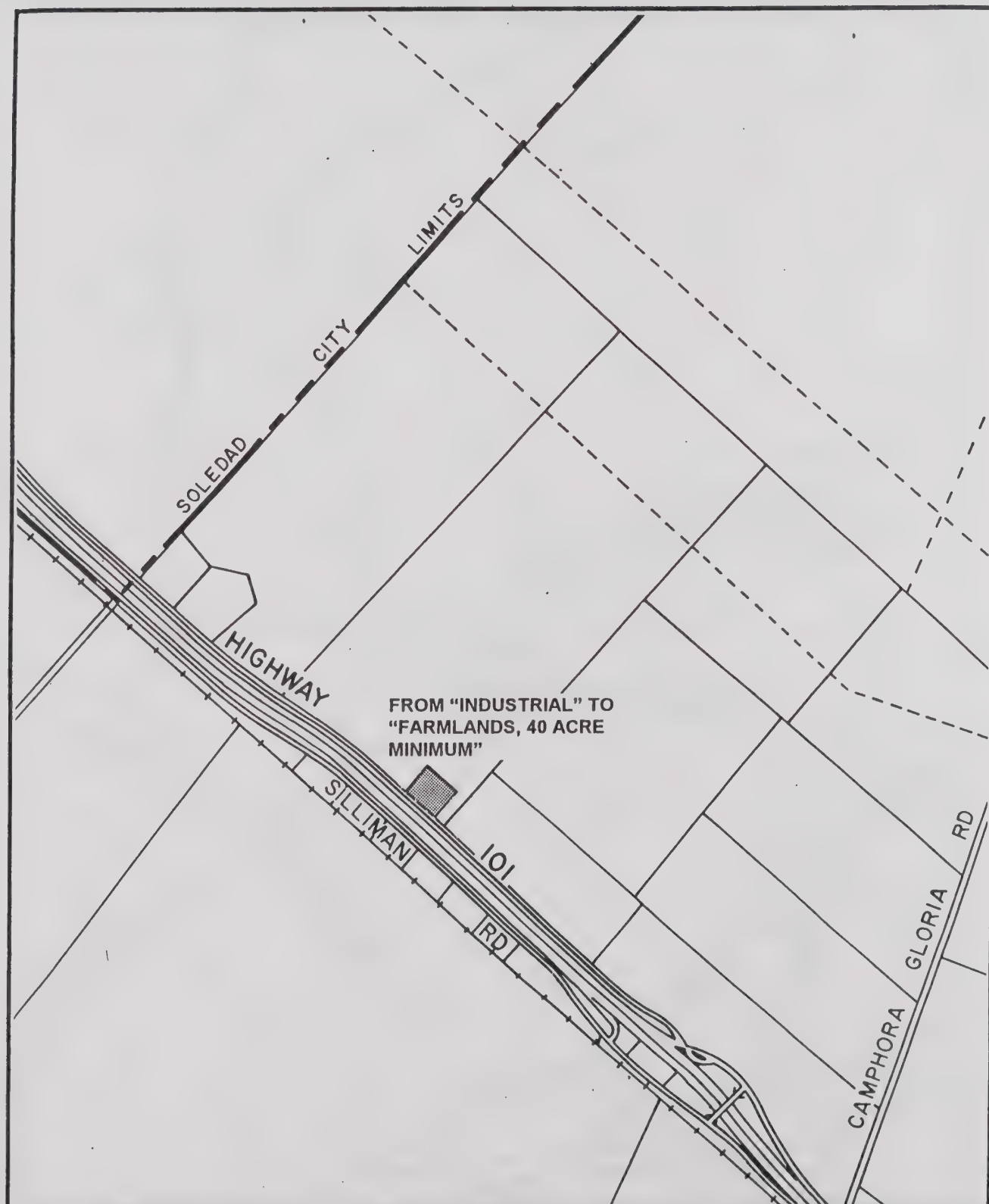
CENTRAL SALINAS VALLEY
AREA PLAN



MAP CHANGE - APN 257-031-02

CENTRAL SALINAS VALLEY AREA PLAN

DECEMBER 11, 1990



CENTRAL SALINAS VALLEY AREA PLAN



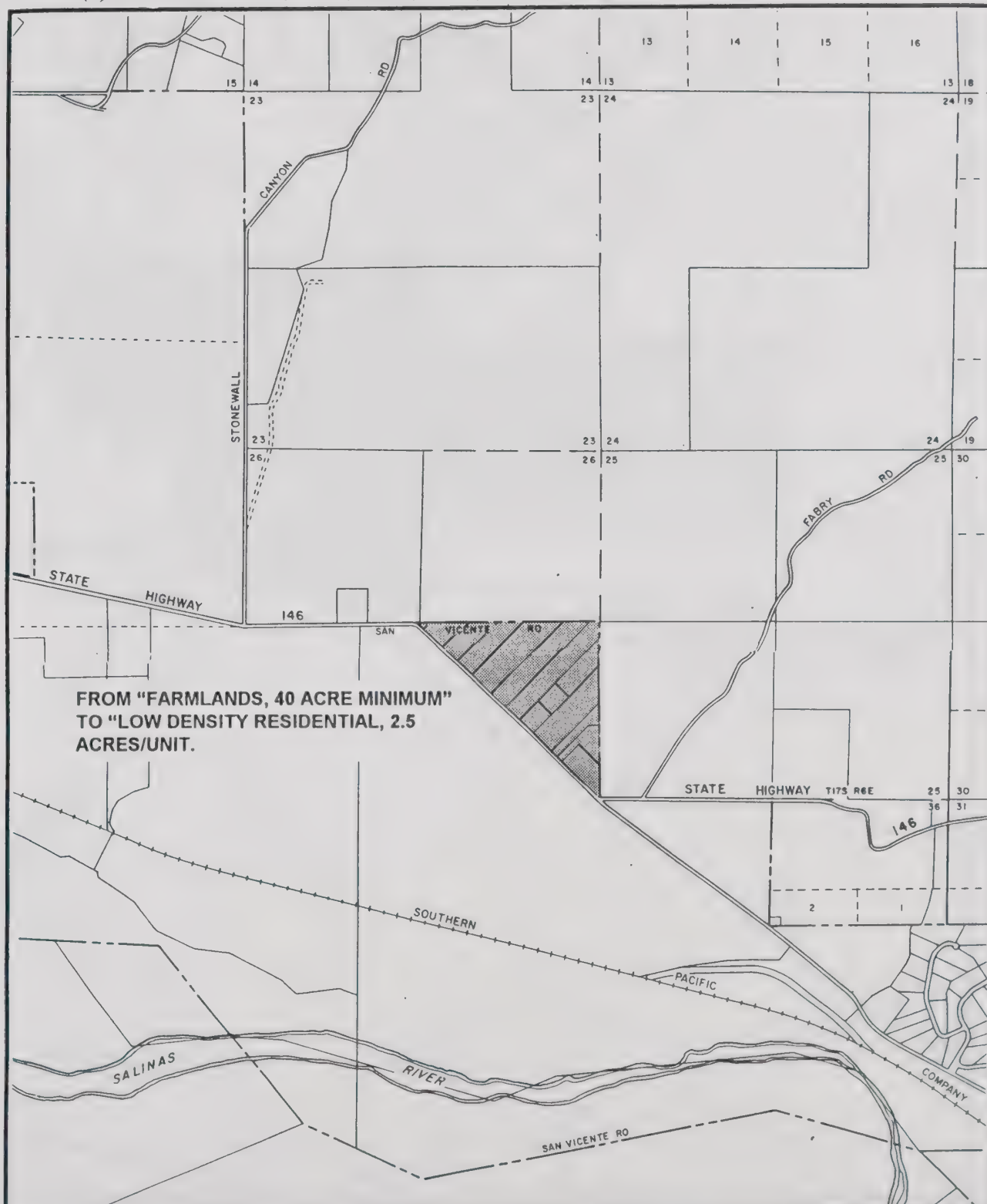
UPDATE INDEX #5

MAP CHANGE

APN(s) 257-121-006; 007; 009; 011; 013; 015-023

CENTRAL SALINAS VALLEY AREA PLAN

DECEMBER 15, 1992



**FROM "FARMLANDS, 40 ACRE MINIMUM"
TO "LOW DENSITY RESIDENTIAL, 2.5
ACRES/UNIT."**

**CENTRAL SALINAS VALLEY AREA
PLAN AMENDMENT**

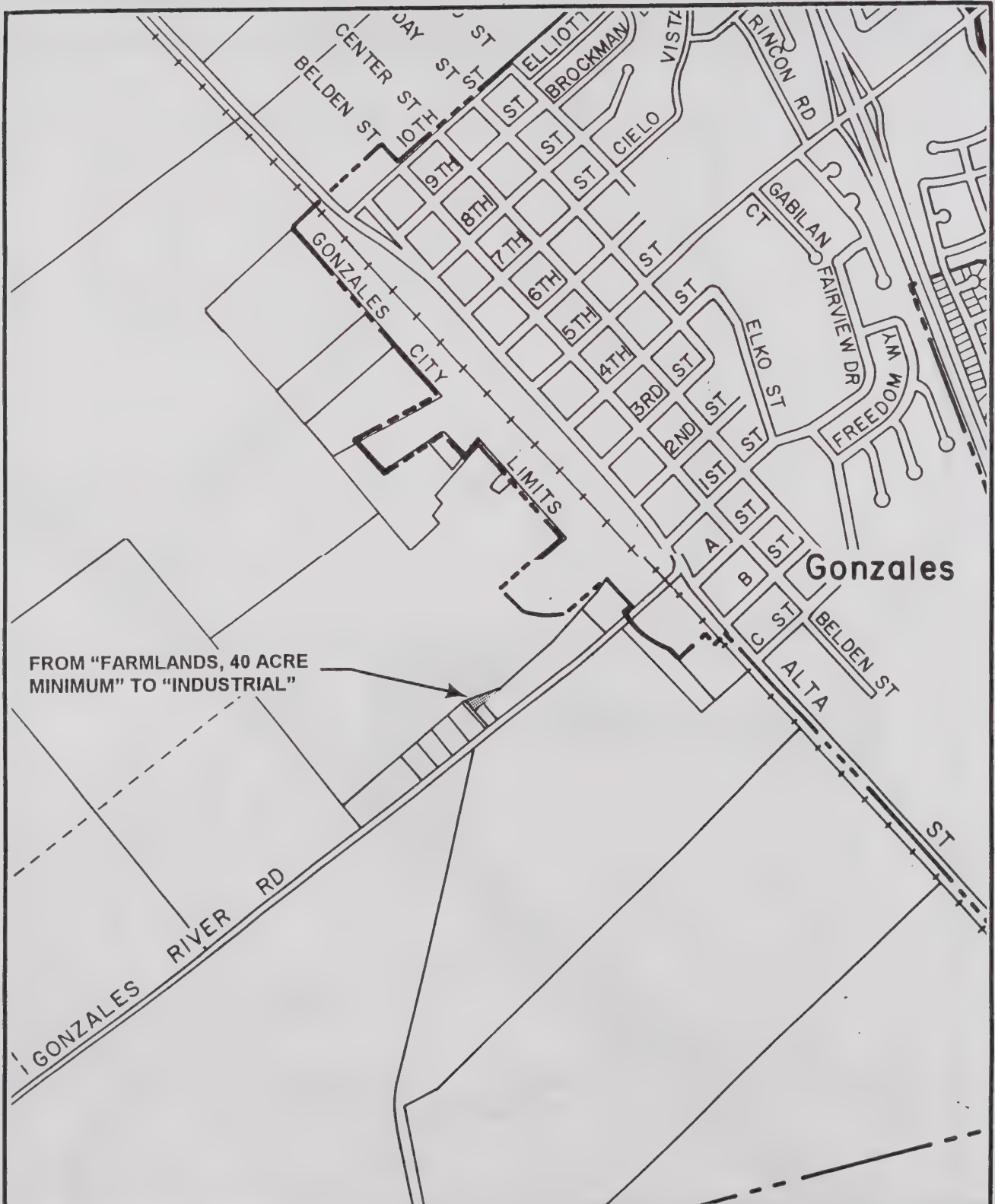


UPDATE INDEX #6

CENTRAL SALINAS VALLEY AREA PLAN

MAP CHANGE - APN 020-021-11

AUGUST 24, 1993



CENTRAL SALINAS VALLEY
AREA PLAN

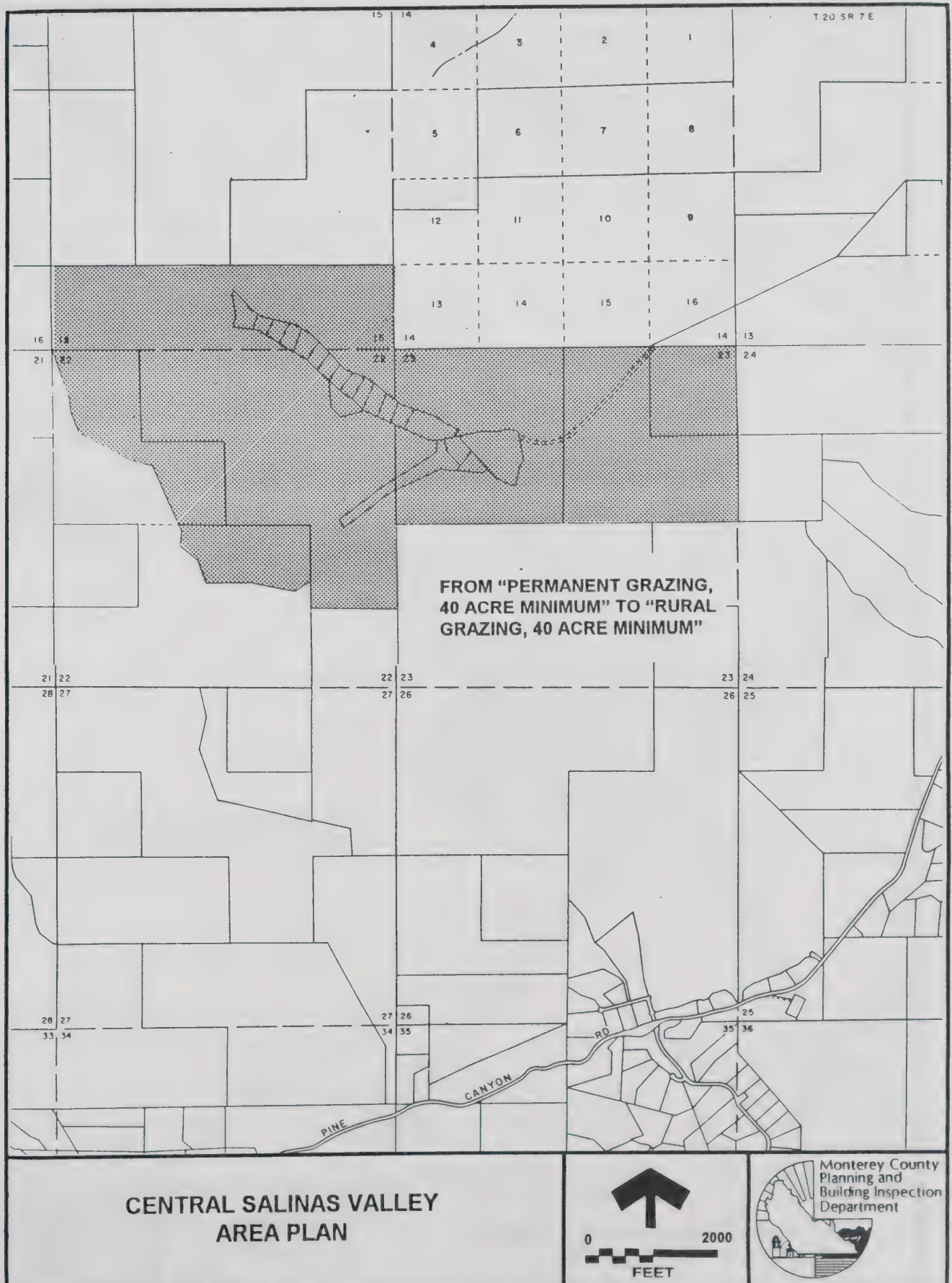


UPDATE INDEX #7

CENTRAL SALINAS VALLEY AREA PLAN

MAP CHANGE - APN 420-063-033-000M

AUGUST 24, 1993



UPDATE INDEX #8
MAP CHANGE - APN 137-051-028

CENTRAL SALINAS VALLEY AREA PLAN
DECEMBER 14, 1993



CENTRAL SALINAS VALLEY
AREA PLAN

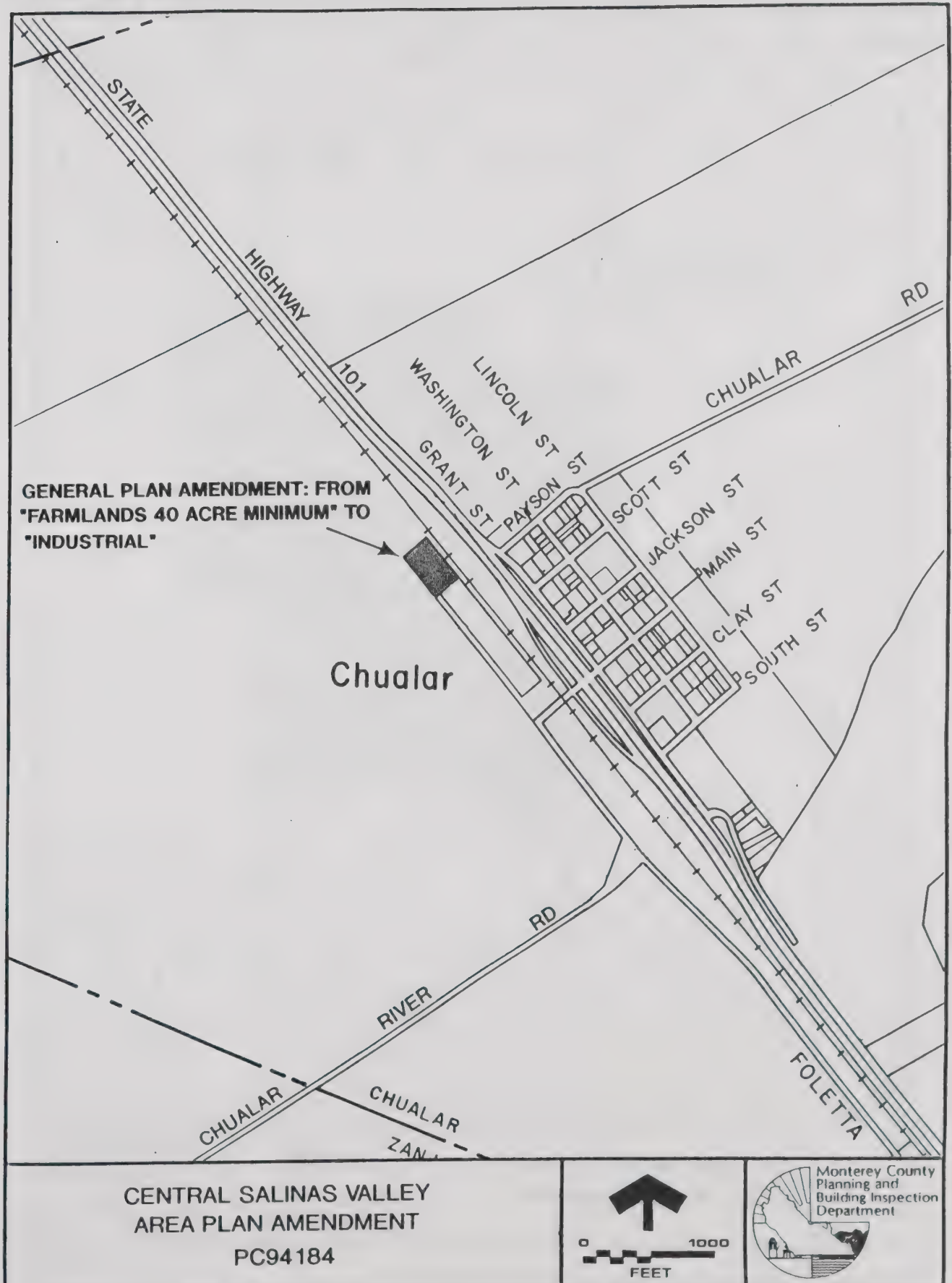


UPDATE INDEX #9

CENTRAL SALINAS VALLEY AREA PLAN

MAP CHANGE - APN 145-021-001

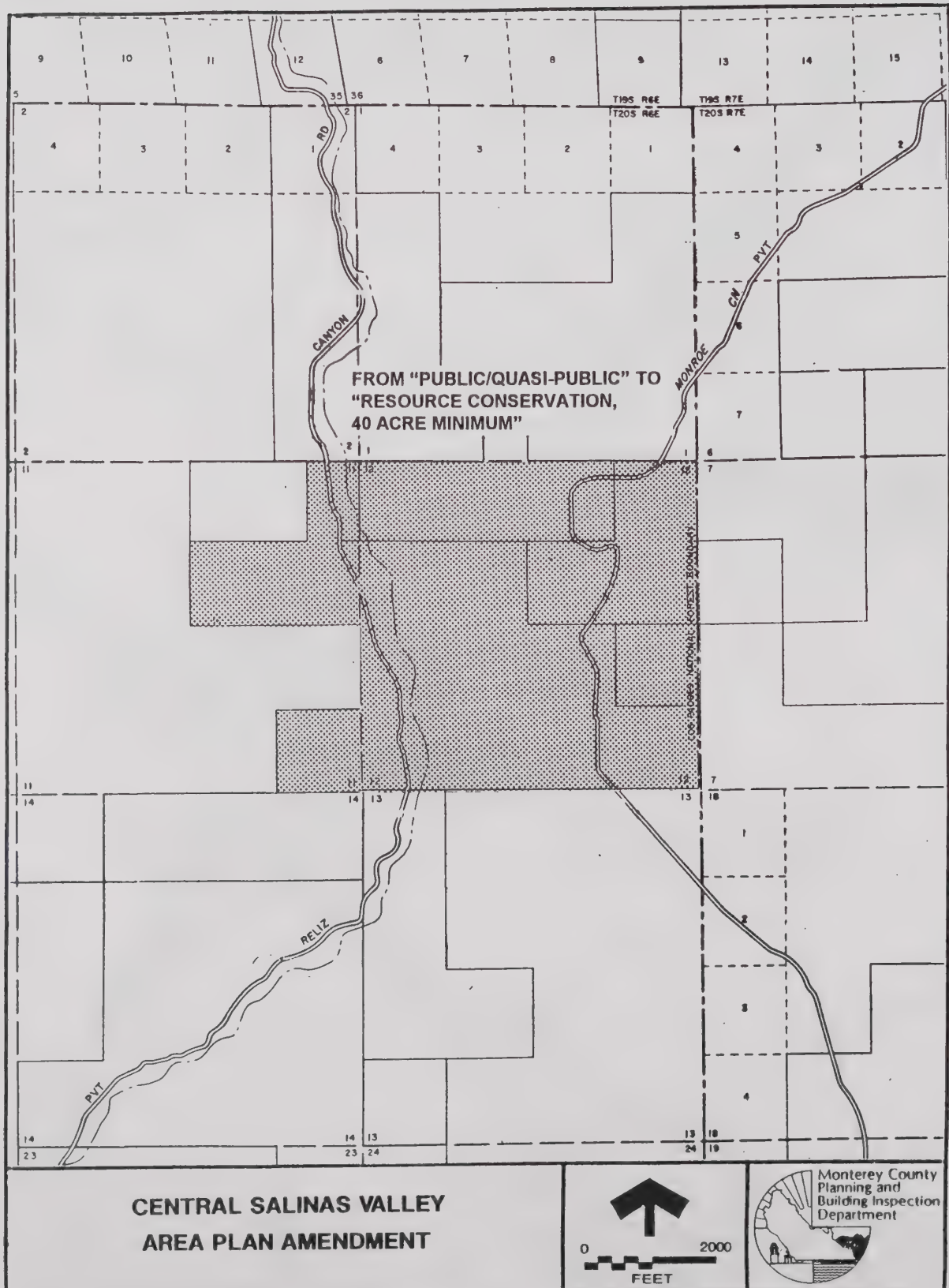
JUNE 14, 1994



**UPDATE INDEX #10
MAP CHANGE**

**CENTRAL SALINAS VALLEY AREA PLAN
DECEMBER 5, 1995**

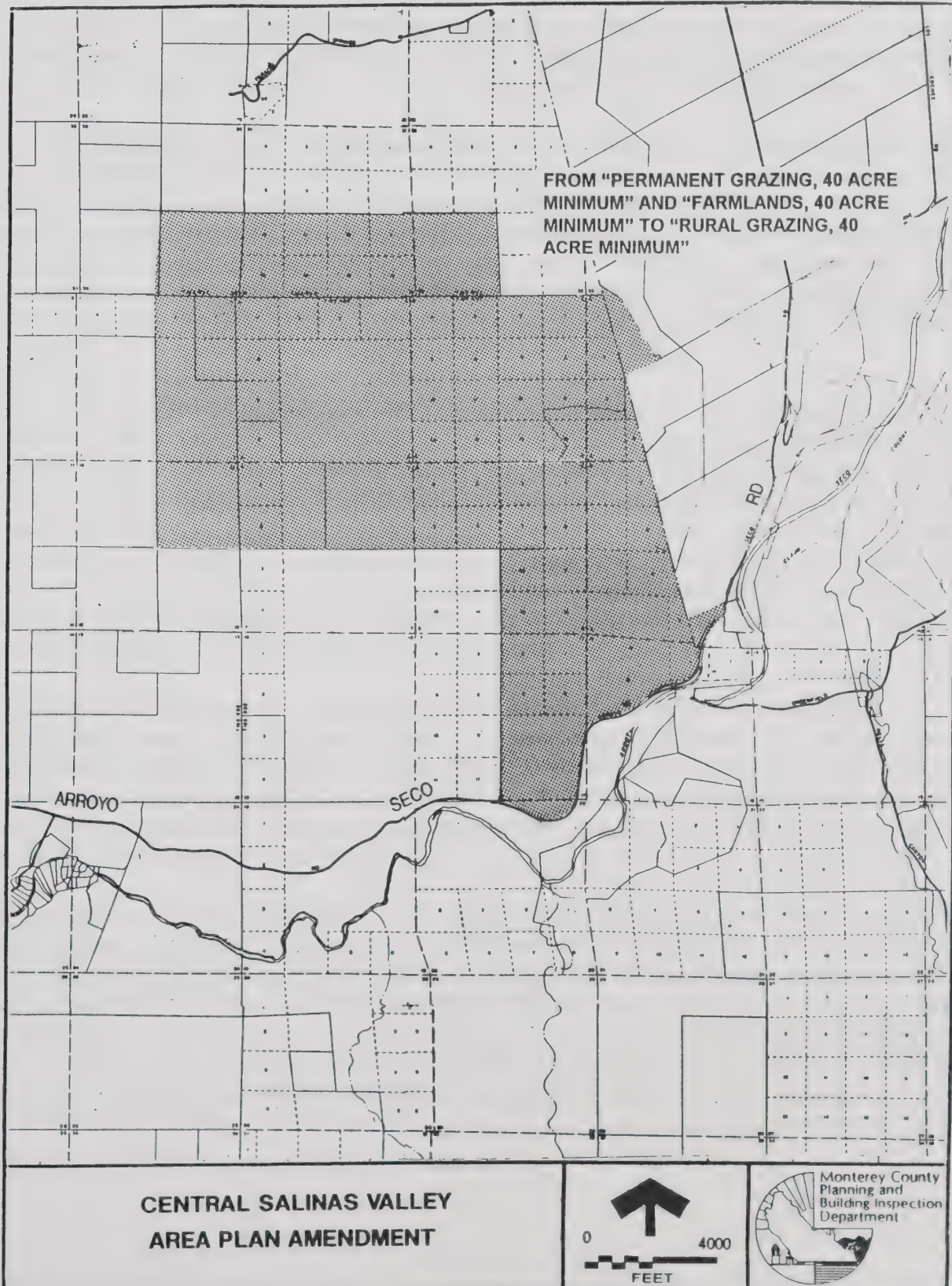
APNs 420-051-011-000; 420-051-012-000; 420-051-013-000; 420-051-014-000



**UPDATE INDEX #11
MAP CHANGE**

**CENTRAL SALINAS VALLEY AREA PLAN
DECEMBER 5, 1995**

**APNs 419-101-001-013-000; 017-000; 057-000; 060-000; 419-081-012-000;
062-000; 063-000; 418-361-006-000; 418-381-026-000; 111-021-006-000;
109-491-005-000**



Once the relative suitability of different areas for these three general land uses has been determined, policy decisions based on countywide and area policies must be made to weigh the relative values of each suitable use for different areas. By considering the suitability maps, the existing land use pattern, and the capacity of present and anticipated public services, a sound land use map may be developed.

Of the three land use types considered in the land suitability analysis, inherent physical characteristics of the Planning Area dictate that farming and grazing have the greatest potential. A significant amount of land in the Planning Area is also suitable for development.

By far the majority of the Central Salinas Valley is best suited for agriculture. Agricultural uses currently occupy almost 74% of the land in the Planning Area. With the exception of only the steepest slopes along the eastern border of the Planning Area, the Los Padres National Forest, and a small area in Pine Canyon, almost all of the Planning Area is highly or moderately suited to grazing. Although grazing suitability in some areas is low, grazing may still be the most appropriate land use. Many of the low grazing suitability lands are either too steep or remote to be acceptable for any other land use and in most cases have extremely low development potential.

The fertile Salinas Valley floor, while highly suited to grazing, is also highly suited to farming due to the prime agricultural soils and level terrain. As illustrated in Figure 3, most of the valley floor throughout the length of the Planning Area is highly suited to farming and row crop production. Many other areas highly suited for grazing can be farmed depending upon the soil, slope, availability of irrigation water, and the prevailing markets for agricultural products. Depending upon location, surrounding land uses, and the property owner's level of commitment, much of the Planning Area can be maintained in long-term agricultural use. Appropriate planning for the conservation of farmlands and good rangeland management are the keys to continued viability of Central Salinas Valley agriculture.

Analysis of the development suitability findings shows that most of the areas highly suited to development occur along the valley floor in the same areas highly suited to farming. Narrow areas along Highway 25, Reliz Canyon Road, and the larger canyons also exhibit high development suitability. East of the Salinas River large areas along the foothills of the Gabilan Range show moderate suitability to development. The remainder of the Planning Area exhibits extremely low development suitability.

Although the land suitability analysis may indicate that a particular parcel has characteristics which render it relatively developable, the land use plan must consider how that development will affect the larger land use pattern of the Planning Area and the County as a whole. Factors such as public services and facilities and existing infrastructure, which were not part of the land suitability study, should be considered in the formulation of the land use plan. Competing needs for land should also be considered and procedures determining which of those needs are most important should be established. Existing urban patterns indicate possible competition between farming and urban land uses in those areas highly suited to both. A balanced land use plan

establishes a framework for agriculture, grazing, housing, industry, recreation, and any other activity essential to Planning Area residents. Due to its importance to the local and regional economy, long-term farming and crop production are probably the highest and best use of land highly suited to farming in the planning area. A balanced plan may require that development be directed to highly and moderately suited areas away from prime farmlands.

LAND USE DESIGNATIONS

All major land uses are indicated by one of seven basic designations; residential, commercial, industrial, agricultural, resource conservation, public/quasi-public, and transportation. These basic designations, along with overlay designations for urban reserve and special treatment, are discussed in the following paragraphs. It should be noted that all references to development densities are expressed in gross acres and all densities are maximum densities. These maximum densities will be allowed only where provision for an adequate level of facilities and services exists, and where plan policy requirements and criteria can be met.

Residential

The Residential category applies to areas to be used for the development of housing at various densities. Within the time frame of the area plan, the County will direct residential development into areas designated according to the following density categories*:

- | | |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Rural Density - | requires greater than 5 acres per dwelling unit; |
| Low Density - | requires 5 acres per dwelling unit up to 1 acre per unit; |
| Medium Density - | requires less than 1 acre per dwelling unit up to 0.2 acres per unit (i.e. more than 1 unit per acre up to 5 units per acre); and |
| High Density - | requires less than 0.2 acres per dwelling unit up to 0.05 acres per unit (i.e. more than 5 units per acre up to 20 units per acre). |

Commercial

The Commercial category applies to areas which are suitable for the development of retail and service commercial uses, including visitor accommodation and professional office uses. In general, building intensity for commercial areas shall conform to standards which limit building height to a maximum of 35 feet and lot coverage to a maximum of 50 percent, excluding parking and landscaping requirements.

* Where clustering is allowed, total site density shall not exceed the density allowed by the appropriate residential category. In addition, on development sites where clustering is allowed, minimum lot sizes may be reduced consistent with environmental, health, and other planning requirements.

Industrial

The Industrial category applies to areas designated for the development of suitable types of manufacturing, research, mineral extraction, and processing operations. In general, building intensity for industrial areas shall conform to standards which limit building height to a maximum range of 35 feet to 75 feet and lot coverage to a maximum of 50 percent, excluding parking and landscaping requirements.

Agricultural

The Agricultural category includes the sub-categories of Farmlands, Rural Grazing lands, and Permanent Grazing lands.

The Farmlands sub-category includes those farmlands designated by the USDA Soil Conservation Service Important-Farmland Inventory system as prime, of statewide importance, unique, or of local importance. The minimum parcel size for these farmlands shall be at least 40 acres.

The Permanent Grazing sub-category is applied to those portions of Central Salinas Valley in which grazing, or other agricultural uses, are to be preserved, enhanced, and expanded. On Permanent Grazing lands, minimum parcel sizes shall be 40 acres and larger, but they shall not be less than the existing zoning designation on the date of adoption of the Countywide General Plan.

Subdivision of land in Permanent Grazing may be allowed only for (1) agricultural purposes if the exclusive grazing use of the parcel is preserved, enhanced, and expanded and the parcel to be subdivided is not under Williamson Act contract, (2) farm labor housing where the proposed parcel is 40 acres or larger and clearly consistent with the intent of the "Permanent Grazing" category as stated in the Countywide General Plan, or (3) creation of one building site for the immediate family of the property owner who earn their livelihood from the grazing use of the family land.

The Rural Grazing sub-category is applied to grazing lands which are located in the County's developing areas, which are not restricted by a 20-year Williamson Act contract, and on which the County intends to allow mixed residential and agricultural land uses. In Rural Grazing areas, minimum parcel sizes shall range from 10 acre minimum to a 160 acre minimum, but they shall not be less than the minimum parcel sizes on the date of adoption of the Countywide General Plan.

Clustering of residential uses shall be encouraged provided that total site density does not exceed the minimum lot size allowed by the appropriate rural grazing land use category. Density for clustering shall be numerically consistent with established minimum lot size; e.g., in an area which is designated rural grazing with a 10-acre minimum, allowable density shall be 10 acres per dwelling unit. As a condition of clustered residential development approval, the developer shall be required to enter into a permanent restriction to ensure continued grazing use on those

portions of the property not developed for residential use.

Resource Conservation

The Resource Conservation category is intended to ensure conservation of a wide variety of the County's resources while allowing for some limited use of these properties. Typical of lands included in this category are watershed areas, riparian habitats, scenic resources, and lands which are generally remote, have steep slopes, or are inaccessible. The floodways of the major rivers and water bodies in the County are also included in Resource Conservation.

All land uses in Resource Conservation areas must conform with the conservation intent of the category. For example, allowed uses may include grazing, other agricultural uses, and passive recreation such as camping, riding, and hiking.

Minimum parcel sizes in resource conservation areas shall range from 10-acre to 160-acre minimums as specified on the Land Use Plan. Residential uses are not a primary use in this category and will be allowed only if the applicant can demonstrate that conservation values are not compromised. Density for residential uses, if allowed, shall range from 10 acres or more per unit to 160 acres per unit.

Public/Quasi-Public

The Public/Quasi Public category is applied to a wide variety of existing and proposed uses which are either operated by a public agency or which serve a large segment of the public. Public/Quasi-Public uses include the following:

- Schools, both public and private;
- Parks, Recreation Areas, and Public and Privately Operated Recreational Facilities (i.e. tennis clubs and golf courses with accessory uses such as clubhouse, pro shop, restaurant, and administrative/business office;
- Natural Reserves;
- Emergency Services such as police, fire, and hospital;
- Solid and Liquid Waste Disposal;
- Military Facilities;
- Religious Facilities; and
- Other Public Facilities.

Transportation

The transportation category includes highways, major arterials (i.e. major county roads), scenic routes, recreational trails, railroads, airports, and harbors.

Urban Reserve

The Urban Reserve overlay designation may be used in conjunction with any of the County's land use categories. It is used to denote areas adjoining the four incorporated cities which the County believes should be annexed and developed as a part of an incorporated city to ensure the effective provision of urban services and facilities. Until annexation occurs, the County will allow those uses which are shown on the Land Use Plan in conjunction with the urban reserve overlay. While under County jurisdiction, allowed land uses within urban reserve areas are specified at densities which will not compromise the future annexation plans of any city.

Major Land Use Recommendations

The following sections describe major recommendations for each of the land use designations shown graphically on the land use plan (see Figure 14). The land uses and designated densities must be reviewed in conjunction with policies contained in both the General Plan and the Area Plan. Certain areas may be less suited for a particular density than other areas with the same density because of either environmental constraints or scenic values. For example, areas with steep terrain will have a lower density because of Policy 3.2.4 (CSV) related to slope density.

Residential

The Land Use Plan designates new residential development in areas which are already committed to some degree of residential development.

Low Density Residential land use is designated (1) in Pine Canyon west of King City along Pine Canyon Road at densities of 1 acre, 2.5 acres, and 5 acres per unit, (2) in San Lucas at a density of 1 acre per unit, (3) in Arroyo Seco at Sycamore Flats and along Carmel Valley Road at a density of 1 acre per unit, (4) along Foothill Road between Mission Road and Colony Road at a density of 2.5 acres per unit, and (5) along Bitterwater Road, six miles east of King City, at a density of 1 acre per unit.

Medium Density Residential land use is designated in Pine Canyon west of King City at a density of 5 units per acre. Any development or subdivision in the area designated Medium Density Residential must be supported by adequate sewage treatment capacity and water system capacity pursuant to General Plan Policy 26.1.4.

High Density Residential is defined by the Countywide General plan as having a range of 0.2 acres per dwelling unit to 0.05 acres per unit, or a range from more than 5 units per acre to 20 units per acre.

High Density Residential land use is designated (1) in Pine Canyon from Burns Road to Los Ositos Road at a maximum density of 8 units per acre, (2) in San Lucas in an area bounded by Main Street, San Lucas Street, Julius Street, and Teresa Street at a maximum density of 5 units

per acre, and (3) in Chualar northeast of Highway 101 at a maximum density of 10 units per acre. However, on the Broome property in Chualar, not more than 4 acres may be developed at a density of not more than "18 units/acre" only if all of the units are constructed to serve low income persons. In Chualar, all of the High Density Residential areas are designated as a Development Incentive Zone.

Any development or subdivision in the areas designated High Density Residential must be supported by adequate sewage treatment capacity and water system capacity pursuant to General Plan Policy 26.1.4.

Commercial

Commercial land use is designated (1) in Chualar along Grant Street from Payson Street to Clay Street at a depth of 150 feet northeast of Grant, (2) in San Lucas east of Main Street from Anita Street to Rosa Street back to the first alley, (3) in the Paraiso Hot Springs area, (4) in three areas along Jolon Road, and (5) in six areas along U. S. Highway 101.

Industrial

Industrial land use is designated (1) in Chualar west of Highway 101, (2) in San Lucas on both sides of Highway 101, (3) along Metz Road east of Greenfield, and (4) along Highway 101 north of Camphora Gloria Road.

Agricultural

Farmlands are designated along the entire length of the Salinas Valley in the Planning Area. Farmlands are also designated along Highway 146 and Highway 25.

Rural Grazing lands are designated (1) in Chualar Canyon at a density of 10 acre minimum, (2) in the Arroyo Seco at a density of 10 acre minimum, (3) in Reliz Canyon at a density of 10 acre minimum, (4) along Elm Avenue west of Reliz Canyon at a density of 10 acre minimum, (5) in Pine Canyon at densities of 10 acre, 20 acre, and 40 acre minimums, and (6) on Oasis Road at a density of 10 acre minimum.

Permanent Grazing lands are designated in the steeper lands of the Gabilan Ranges, Sierra de Salinas, and Santa Lucia Ranges.

Resource Conservation

Resource Conservation lands are designated on the steep, eastern slopes of the Sierra de Salinas and Santa Lucia Ranges which adjoin the Los Padres National Forest and the Fort Hunter Liggett Military Reservation.

Public/Quasi Public

Public/Quasi Public land use is designated (1) in the Los Padres National Forest, (2) in the Pinnacles National Monument, (3) on the State Correctional Facility north of Soledad, and (4) on all solid waste disposal sites and sewage treatment plants.

Transportation

All transportation provisions of the Countywide General Plan are retained in the Area Plan. In addition, the Plan encourages the County to consider working with the Southern Pacific Railroad and the Public Utilities Commission to provide a railway crossing at the northwest end of Main Street in San Lucas (see Policy 27.2.3 (CSV)).

The Plan directs the County to pursue measures to obtain official Scenic Route designations from the state for (1) Highways 146 and 25, (2) Arroyo Seco Road from Carmel Valley Road to Elm Avenue, (3) Elm Avenue between the Greenfield Bridge and the City of Greenfield, and (4) Bitterwater Road from King City to the eastern border of the Planning Area (see Policy 40.1.2 (CSV)).

The Section 21670.1 et seq. Public Utilities Code provides for the creation of an airport land use commission (ALUC) in each county which contains at least one airport operated for the benefit of the general public and served by an air carrier certified by the Public Utilities Commission or the Civil Aeronautics Board. The seven member ALUC is responsible for formulating a comprehensive land use plan to provide for the orderly growth of each public airport and the area surrounding the airport. Pertinent portions of the Area Plan may serve as the basis for the comprehensive land use plan prepared by the ALUC to address the unincorporated area surrounding the Mesa Del Rey Airport.

Urban Reserve

The Land Use Plan designates about 647± acres of land as urban reserve north of the City of Soledad in El Rancho San Vincente. Urban Reserve lands adjoining the Cities of Gonzales, Greenfield, and King are limited to areas within the existing Sphere-of-Influence of each respective City.

Special Treatment Area

A Special Treatment area is property specifically delineated on the Land Use Plan which must be addressed in a manner different from other surrounding properties within the same land use designation. A special treatment area is used to facilitate a planned approach via policy language for property where unique circumstances exist that may not otherwise be addressed by the provisions of the Area Plan.

Special Treatment areas are delineated (1) for the Old Mission Union School on Foothill Boulevard west of Soledad (see Policy 30.0.1.1 (CSV)), (2) in the area bounded by Old Stage Road, Encinal Road, and Quail Creek; and the area south of Potter Road to a depth of 1,000 feet (see Policy 30.0.3.2 (CSV)), and (3) for the Lohr property west of Greenfield (see Policy 30.0.5.1 (CSV)).

CHAPTER VI
PLAN IMPLEMENTATION

PLAN IMPLEMENTATION

As in the Monterey County General Plan, the Central Salinas Valley Area Plan consists of policies and a land use plan, and is a comprehensive long range plan designed to guide the area's development and resource conservation. It is the product of an analysis of information found in a background report and resource maps compiled in a study of the planning area. It reflects physical opportunities and limitations for growth.

The Central Salinas Valley Area Plan, as a part of the General Plan, is to be used as the basis for discretionary action by the Board of Supervisors and the Planning Commission. While the General Plan sets the framework for community development, the day-to-day actions of the County truly shape the community. Thus, the manner in which the Plan is implemented is the real test of the worth of its goals, objectives, and policies, and eight area plans.

The following sections discuss aspects of implementing the countywide General Plan which will also apply to the eight area plans. Because each area plan is a sub-unit of the General Plan, references to the "General Plan" are intended to include the Central Salinas Valley Area Plan.

The tools for implementation of the General Plan are derived from the County's corporate powers and police powers. State law requires the County to have subdivision and building regulations; most other measures are optional. If the goals, objectives, and policies of the General Plan are to be served effectively, the implementing measures must be carefully chosen, adapted to local needs, and carried out as in integrated program of complementary and mutually reinforcing actions. In addition to the requirements that the General Plan address seven specific elements and be internally consistent, implementing measures must be consistent with the General Plan. Ordinarily an action, program, or project is consistent with the General Plan if it will further the objectives and policies of the General Plan and not obstruct their attainment.

Some of the more important implementation measures for the County include zoning regulations, subdivision regulations, capital improvements programming, delineation of urban service boundaries, preparation of specific plans, and project review under the California Environmental Quality Act.

ORDINANCES

Zoning Ordinance

Zoning is the primary tool for implementing the General Plan. In its simplest form, zoning is the division of a geographical area into districts, accompanied by a written description of allowable and conditional land uses and development standards related to height, bulk, volume, and intensity for each of the districts. The function of zoning is to translate the comprehensive, long-range, and relatively broad policies of the General Plan into single purpose, short range, and specific development standards for each piece of property in the County. Proper zoning will help to ensure that development on any parcel in the County is in conformance with the updated General Plan.

Planning law stipulates that no open space zoning ordinance may be approved unless consistent with the Plan's policies regarding open space. Revising the zoning ordinance to secure conformity with the General Plan will include the establishment of appropriate zoning districts and densities to implement the Plan, specification of zoning for each parcel, and continued enforcement and amendment as appropriate.

Subdivision Ordinance

In order to ensure conformity to the General Plan, the County is directed to regulate the "design and improvement" of subdivisions, which includes the physical layout of lots, dedication of public improvements and easements, and other measures. Furthermore, the County is authorized by the Subdivision Map Act to require dedication of public improvements or require payment of in-lieu fees for improvements such as street, drainage, local transit, school sites, parks and recreation, coastal access, and erosion control.

The subdivision ordinance should address the issues of on-site improvements, off-site improvements, and protection of environmentally sensitive areas. Specific subdivision proposals must demonstrate consistency with the General Plan on these points as well as on the issue of proper timing or other issues addressed in the subdivision ordinance.

Other Ordinances

Other existing ordinances and policies which will be reviewed in the interest of consistency with the General Plan and to facilitate its implementation include the Erosion Control Ordinance, the Noise Pollution Ordinance, the Official Plan Line (OPL) Ordinance, the Building Ordinance, energy policies, and the Growth Management Policy. These ordinances must reflect the goals, objectives and policies adopted in the Monterey County General Plan.

CAPITAL IMPROVEMENTS PROGRAM

The network of publicly owned facilities such as roads, streets, water and sewer facilities, public buildings, and parks forms the skeletal structure of a community. Certain public facilities, particularly water and sewer facilities and roads and streets, play a major role in determining the location, intensity, and timing of future development.

Because of their importance in the growth of the community, state law requires that decisions about capital facilities be reviewed for consistency with the adopted General Plan. All departments within the County and all other local governmental agencies, including cities, school districts, and special districts that construct capital facilities, must annually submit to the Planning Commission a list of projects being planned or constructed in conformity to the General Plan. A similar review for individual capital projects is also required.

Rather than consider individual capital improvement projects or only those projects to be undertaken in a single year, the County will prepare and annually revise a Capital Improvements Program (CIP) covering a period of at least six years. Because of the tremendous influence that capital improvement projects have on physical development within a jurisdiction, the Capital Improvements Program has important strategic value for implementing General Plan policies. It can help shape and phase growth according to adopted policies.

Major steps in the development of a CIP are (1) selection of necessary improvements and projects to implement the General Plan, (2) coordination with Public Works and other agencies responsible for construction and maintenance of public facilities, (3) establishment of priorities to promote staged development of capital facilities in a manner consistent with the General Plan, and (4) development of adequate and equitable financing for each project. The CIP should be reviewed annually and revised to reflect the County's evolving needs and fluctuating budgetary constraints.

ONGOING REVIEW

Due to the nature of the General Plan, most of its implementation is an ongoing process. Further specification and guidance is extended through the development of area plans, specific plans, and review under the California Environmental Quality Act (CEQA).

A sphere of influence represents the probable 20-year physical boundaries and service area for local cities or special districts. Within a sphere of influence, urban development will be directed to areas adjoining existing urban areas that are within the urban service boundary of a city or special district. The urban service boundary concept is designed to accommodate urban development phased over a five-year time period. It is anticipated that incorporating the urban service boundary concept into the overall General Plan framework will provide a valuable tool for controlling the location and timing of urban development on Monterey County.

Specific plans may be used in all or part of the County to ensure systematic execution of the General Plan. A specific plan must include all detailed regulations, conditions, programs, and proposed legislation to implement each of the required General Plan elements. By coordination efforts of the public and private sectors in a detailed manner, specific plans provide for the efficient and focused application of General Plan policies in developing portions of the County.

Every proposed development project must be evaluated for potential environmental effect under regulations set forth in the California Environmental Quality Act. This review ensures that the same concern for the environment which went into the formulation General Plan will be incorporated into each development project proposed under the Plan. Preparation of an environmental impact report will be required for those projects which may have significant effects on the environment.

The General Plan may be amended to reflect changing community values, conditions, and needs. With a few exceptions, no mandatory element may be amended more frequently than four times during a calendar year. Each amendment may encompass several different changes. General Plan amendments are considered projects and are subject to environmental review under CEQA. The Plan should only be considered for amendment when the County determines, based on new information, that a change is necessary.

Monterey County's Growth Management Policy and its General Plan must be consistent with one another. Data and policies in the Plan supporting the objectives of growth management can provide a solid rationale upon which the regulations may rest. A share of the countywide growth management allocation shall be incorporated in each area plan.

The Growth Management Policy and the General Plan should be in harmony to avoid conflicts. Competing interests, obligations, and objectives are balanced in the General Plan. Furthermore, tools used to implement the General Plan are often used to implement the Growth Management Policy: zoning and subdivision regulations and capital improvements program. Use of all implementation tools must be consistent with the General Plan.

CHAPTER VII:
ENVIRONMENTAL IMPACT REPORT

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SUMMARY

Introduction

An Environmental Impact Report (EIR) is an informational document required by Section 21083 of the California Public Resources Code. Its purpose is to inform public agency decision makers as well as the general public of the significant adverse environmental effects of a project, identify possible ways to mitigate the significant effects, and describe reasonable alternatives to the project.

This EIR discusses the potentially significant adverse environmental effects of the policies and land use designations of the Central Salinas Valley Area Plan that will supplement and supersede the Monterey County General Plan. The focus will be on the changes between the Area Plan and existing land use conditions. The depth of analysis will correspond to the specificity of the subject policy or land use change. An EIR for the county-wide General Plan was adopted on September 30, 1982. The reader is directed to the 1982 General Plan's EIR for an assessment of the environmental effects which could result from the policies and land use designations of that plan.

The scope of work for this EIR includes: geology and soils, hydrology and flooding, water supply and quality, noise, visual aesthetics, traffic, air quality, public services, energy, and land use.

An Initial Study consisting of an Environmental Impacts Matrix and table of Land Use Changes appears on pages 3 through 10. A discussion of these impacts and mitigation measures follows these Tables.

This Area Plan, in concert with the County General Plan, establishes a framework of policies and land uses that will guide future development, but does not specify individual developments or activities that will actually take place. These plans are intended to preside over a period of fifteen to twenty years. Implementation and development pursuant to the policies and land use designations established in the Area Plan will occur over time. The significant adverse environmental impacts resulting from implementation of the Plan will therefore be cumulative in nature. New development will exacerbate or accentuate problems regarding natural resources, public services, and the quality of life in general. The Area Plan EIR must therefore address general environmental impacts that are cumulative in nature. Most of the cumulative effects will be generated by actions that promote or facilitate new growth.

To achieve a better understanding of these cumulative impacts, as well as the individual actions which will result in these cumulative effects, this EIR addresses the individual impacts of the Area Plan actions individually in the Impacts and Mitigations section, and then cumulatively under the Environmental Evaluation heading. The following Summary abridges the potential impacts and mitigation measures of the Area Plan policies and land use designations. The Environmental Matrix that follows the Summary lists these impacts. The Environmental Evaluation section essentially summarizes the cumulative impacts of the individual impacts and mitigation measures.

All potentially significant adverse impacts are evaluated based upon the estimated maximum buildout or worst case scenario. Area Plan and General Plan policies, existing development, as well as natural constraints, will in many cases limit new development to levels below those used in these environmental assessments. Mitigation of these impacts will occur through implementation of various policies contained in the Area Plan and County General Plan, as well as various County Ordinances.

Impacts and Mitigation Measures

Policy 6.1.3

Impacts:

Delaying or preventing development in areas where water supplies are overdrafted or contaminated could indirectly increase housing costs by reducing the land available for development. Requiring development to provide a new source of water could directly increase housing costs.

Mitigation Measures:

General Plan Objectives 6.1 and 6.2 and Policy 6.2.1 state the County's objective to eliminate the overdraft of groundwater resources and develop supplemental water supplies. Pursuant to Policy 6.1.2, water conservation measures shall be encouraged.

Overdrafting and water contamination can be lessened by observing Area Plan Policy 5.1.2.1 which requires that development be designed to maintain groundwater recharge capabilities on site.

The County's Growth Management Policy, Inclusionary Housing Ordinance, and Housing Element contain strategies and policies which seek to facilitate the construction of housing in an environmentally and socially acceptable manner.

Policy 28.1.1.1

Hydrology Impacts:

Increased areas of impermeable surfaces and a high groundwater table will combine to exacerbate runoff and drainage problems. Further development of the site may disrupt natural and existing drainage patterns and increase or concentrate runoff resulting in soil erosion on or off site. Erosion problems will be most severe during the construction phase of development.

Mitigation Measures:

Central Salinas Valley Area Plan Policies 5.1.2.1, 16.2.1.1, and the County Erosion Control Ordinance will serve to lessen impact of the further development on the area's hydrology. Landscaping can be used to control runoff and promote percolation.

Vegetation and Wildlife Impacts:

Alteration or pollution of the riparian corridor may result in the destruction of habitat used by native and migratory birds, mammals, and amphibians for foraging, nesting and shelter. Further development of the Hot Springs may exacerbate the lack of oak tree regeneration.

Mitigation Measures:

Policy 28.1.1.1 (CSV) requires a comprehensive development plan for expansion of use at Paraiso. Comprehensive review of the project should allow for the mitigation of a specific project's significant impacts through conditions of the use permit. Pursuant to General Plan Policy 7.1.2, the County should require the dedication of a permanent conservation easement for the protection of the riparian habitat at Paraiso. General Plan Policy 9.2.1 requires that land use practices which could result in siltation or pollution be carefully managed in order to assure a clean and productive habitat. General Plan Policy 21.2.3 will mitigate impacts on water quality.

The County should require that any oaks (particularly Blue and Valley oaks) removed during construction be replaced with young trees of the same species protected from predators.

Energy Impacts:

Expansion of the resort and new commercial uses will involve an increase in energy demand from the following: an increased demand for domestic hot water; more space heating; more lighting; water bottling processes; and additional use of equipment and appliances.

Mitigation Measures:

New structures should be sited and oriented to utilize available solar insolation. Utilize design and construction techniques to optimize the use of solar energy and encourage conservation of energy resources.

Visual Impacts:

The scale of new development will determine the extent of its visual impacts. New lighting may become a visual nuisance to the homes below the resort on Paraiso Springs Road.

Mitigation Measures:

The geographic isolation and topographic setting will do much to reduce the visual impacts of new structures and intensified use of the site. General Plan Policy 26.1.20 requires that the lighting system shall be designed to minimize light and glare upon nearby residents.

Air Quality Impacts:

Expansion of the resort is expected to result in more visitor use, resulting in more vehicle trips to and from the site. An increase in vehicle trips will degrade air quality by increasing dust and vehicle emissions. Expansion of the resort has the potential to increase air pollution, including smoke from new fireplaces and equipment exhausts.

Dust and equipment exhausts will degrade air quality during

construction.

Mitigation Measures:

All new fireplaces and woodburning stoves shall comply to State emission standards. Reduce the number of individual vehicle trips to and from the resort by using a shuttle bus to transport visitors to and from a central parking location in one of the valley cities.

Water Quality Impacts:

An increase in water consumption will result in an increase in the amount of wastewater generated. Improper disposal or treatment of wastewater may contaminate groundwater in the area or pollute the riparian corridor below the resort.

Mitigation Measures:

The additional wastewater generated by an expansion of the resort will require treatment by a method approved by the County Department of Environmental Health. General Plan Policy 21.2.3 requires that commercial developments with 20 or more parking spaces shall include oil, grease, and silt traps, or other suitable means to protect water quality.

Noise Impacts:

The increased visitor vehicle trips will create more frequent vehicle noise impacting residents along Paraiso Springs Road. Vehicle traffic within 50 feet of a residence exceeds the normally acceptable limits for low density residential areas. (Typical noise levels for light auto traffic at 50 feet is 60 dBA). Delivery vehicles may exceed this amount.

Mitigation Measures:

County General Plan Policies 22.2.1-6 and 22.3.1-2 dictate the standards and practices to be used in evaluating a specific project proposal. General Plan Policy 38.1.2 requires that road noise shall be mitigated to comply with the noise control policies of the General Plan.

Transportation Impacts:

Intensified use of the resort will increase vehicle use of Paraiso Springs Road and its feeder roads. The extent of the increased use and corresponding increase in traffic will depend on the development of the resort. Slow moving delivery vehicles may also impede traffic.

Mitigation Measures:

Mitigation measures will depend on the specific project. General Plan Policy 37.2.1 requires that an adequate level of service be maintained. Shuttling visitors from a central parking area near one of the valley cities would reduce individual trips and corresponding noise along Paraiso Springs Road. General Plan Policy 38.1.4 states that the County shall encourage transportation alternatives.

Public Services -

Fire Protection Impacts:

Paraiso Springs is located in an area of very high of fire hazards. New development will add to the risk of fires and the need for emergency services.

Mitigation Measures:

General Plan Policy 17.3.3 requires that all new development not located within 15 minutes response time from a fire station provide on-site fire protection systems. All new development located within 15 minutes response time from a fire station shall be required to annex to the appropriate fire district (General Plan Policy 17.3.6).

Pursuant to General Plan Policy 17.3.4, all new development shall be contingent upon the provision of water supplies for fire suppression. Water systems constructed shall be designed to the standards shown in Table 2 on page 62 of the County General Plan (General Plan Policy 17.3.5). Every building, structure, and/or development shall be constructed to meet, at a minimum, the requirements specified in the Uniform Building Code (General Plan Policy 17.4.2). All roadways shall conform to the standards established in the County General Plan. Area Plan Policy 46.1.2 requires that emergency access problems be identified and addressed before development is allowed to occur.

Pursuant to General Plan Policy 17.4.7, all commercial complexes shall obtain a statement from the fire department that adequate structural fire protection is available.

Fuel modification zones shall be provided pursuant to General Plan Policies 17.4.12 and 17.5.1.

Police Protection Impacts:

An increased number of visitors at the resort may increase the likelihood of theft.

Mitigation Measures:

General Plan Policy 46.2.1 requires the Sheriff's Department to organize crime prevention techniques and conduct security surveys and public awareness programs. The Sheriff's Department should review the development proposal and make recommendations regarding crime prevention.

Solid Wastes Impacts:

Expanding the uses at Paraiso will result in the generation of more solid wastes which will add to the volume of solid wastes disposed of at the Johnson Canyon Facility.

Mitigation Measures:

The County should encourage recycling of solid wastes and recycling industries in the Planning Area.

Archaeological Resources Impacts:

Construction and development activities could result in the destruction or degradation of historic cultural resources.

Mitigation Measures:

General Plan Policies 12.1.3 and 12.1.6 require archaeological field inspections resulting in appropriate mitigation measures shall be required. General Plan Policy 12.1.7 requires that all available measures be explored to avoid development on archaeological sites. The historic sites listed in Table 2 should be placed in the Historic Preservation District pursuant to the County Historic Preservation Ordinance (Zoning Ordinance Chapter 20.84) as soon as said ordinance is adopted.

Policy 30.0.7.1

Geology/Soil Impacts :

Changing the use of certain parcels from farmlands to residential, including small residential subdivisions, will result in increased runoff. The specific characteristics of the site will determine if there will be significant erosion caused by runoff.

Mitigation Measures:

Erosion control plans shall be required pursuant to the County Erosion Control Ordinance.

Energy Impacts:

Isolated developments frequently result in longer resident commutes to work and shopping.

Mitigation Measures:

None.

Visual Impacts:

The rural agrarian character of the Central Salinas Valley is due in part to the large areas of open fields, sparse development, and unobstructed views from roadways. Scattered development will degrade this experience.

Mitigation Measures:

None.

Air Quality Impacts:

Longer vehicle trips required for residents in scattered farmland areas will result in more vehicle emissions.

Mitigation Measures:

County General Plan Policy 37.4.1 encourages overall land use patterns which reduce the need to travel. General Plan Policy 38.1.1 states that the County shall support measures for reducing air pollution from transportation sources.

Water Supply and Quality Impacts:

Additional residential uses will incrementally increase groundwater overdrafts and exacerbate the seawater intrusion problems of the Pressure Area aquifer. Use of septic systems in the Salinas Valley may exacerbate localized water quality problems.

Mitigation Measures:

General Plan Objectives 6.1 and 6.2 and Policy 6.2.1 state the County's objective to eliminate the overdraft of groundwater resources and develop supplemental water supplies. Area Plan Policy 6.1.3 (CSV) requires that new development shall only be approved in areas with adequate water supplies. Pursuant to General Plan Policy 6.1.2, water conservation measures shall be encouraged. All new septic systems will require permit approval by the County Environmental Health Department.

Transportation Impacts:

Locating residences or small subdivisions in isolated areas of the Planning Area will result in greater use of rural county roads. Increased traffic may compete with farm vehicles for use of the rural agricultural roads. Increased vehicle use of the roads will result in more frequent road maintenance.

Mitigation Measures:

Pursuant to General Plan Policy 38.1.5, adequate traffic capacity shall be a criterion for development consideration. Proper signage warning drivers to reduce speed and watch for slow-moving farm equipment should be deployed.

Public Services -

Police and Fire Protection Impacts:

Police and fire protection services will require relatively long response times to reach isolated developments. New development will add to the risk of fires and the need for emergency services.

Mitigation Measures:

Area Plan Policy 17.4.13. shall be used to identify areas of high and very high fire hazard. See Mitigation Measures, Fire and Policy Protection, Policy 28.1.1.1.

School Impacts:

New residential uses will result in more students for Planning Area schools. Additional students will exacerbate the overcrowding of Planning Area schools expected by the year 1990.

Isolated, low density development may also require school districts to expand their busing routes. Funding for student transportation and facilities is uncertain.

Mitigation Measures:

General Plan Policy 47.1.3 states that the County Office of Education shall encourage coordination between school districts experiencing increasing and declining enrollments to provide for the reallocation of surplus facilities in a cost effective manner. School districts may impose developer fees on new residential construction to finance the construction and rehabilitation of temporary and permanent facilities (Govt. Code Sec. 53081).

Solid Waste Impacts:

Wastes generated by residential uses replacing agricultural uses will add to the overall volume of solid waste and shorten the life-span of area land-fills.

Mitigation Measures:

Public education programs promoting recycling can minimize the volume of solid waste produced and maximize the life-span of area land-fills. Recycling programs and industries should be encouraged in the Planning Area.

Community Services Impacts:

The demand for community services should increase with an increase in residential developments. Other public services which may be affected include health services, library service, social services, and park and recreational facilities.

Mitigation Measures:

New subdivisions should be required to dedicate land and/or pay fees in lieu of dedication for the acquisition and development of recreational facilities to serve the needs of the subdivision.

Agricultural Preservation Impacts:

Small residential developments and subdivisions may be incompatible with nearby farming operations. Noise, dust, and herbicide and pesticide spraying associated with agricultural operations may be considered a nuisance by affected homeowners, resulting in nuisance lawsuits which may disrupt agricultural operations.

Mitigation Measures:

General Plan Policies 4.1.3 and 27.3.3 require the protection of agricultural lands from incompatible land uses through appropriate site design and the dedication of buffer zones.

Owners of isolated or unprofitable parcels should be encouraged to lease or sell these parcels to adjacent agricultural operations which may be able to farm these parcels efficiently as part of a larger operation.

The County should investigate a "right-to-farm" ordinance which would require that a "hold harmless" agreement, covenant, or deed restriction be written into the deeds or

contracts of sale of residential property which would limit the circumstances under which an agricultural operation may be deemed to constitute a nuisance.

Policy 39.3.3

Air Quality Impacts:

Waiting and accelerating at stop signs will increase vehicle emissions and decrease air quality.

Mitigation Measures:

Pursuant to General Plan Policies 38.1.1 and 38.1.4, the County shall support the implementation of measures for reducing air pollution from transportation sources and encourage transportation alternatives. In accordance with General Plan Policies 20.2.3 and 20.2.5, the County shall support and encourage monitoring and air pollution control strategies and enforcement by the Monterey Bay Unified Air Pollution Control District.

Noise Impacts:

Vehicles idling and accelerating from a stop will increase ambient noise levels near intersections that are signed.

Mitigation Measures:

General Plan Objective 38.1 states that the County shall plan for transportation modes and strategies that reduce noise. General Plan Policy 38.1.3 requires that the effects of road noise on County roads shall be mitigated to comply with all noise control policies of the General Plan.

Policy 40.1.2

Visual Impacts:

Heavy use of scenic routes may result in litter and/or damage to roadside foliage.

Mitigation Measures:

Sensitive treatment provisions including cooperative landscape programs, sensitive site selection, and open space preservation shall be employed within the scenic corridor pursuant to General Plan Policies 40.2.1 and 40.3.2.

Air Quality Impacts:

Designation of Highways 25, and 145 and Arroyo Seco and Bitterwater Roads as Scenic Highways may attract more people to drive these roads. The increase in visitors and vehicle trips will result in increased vehicle emissions and, incrementally, decreased air quality in the air basin.

Mitigation Measures:

see Mitigation Measures, Air Quality, Policy 39.3.3 above.

Transportation Impacts:

The proposed scenic routes are two-lane rural county roads. A substantial increase in traffic may reduce the level of service on these roads. Highway 146 narrows down to one lane in several locations. Maintaining these highways may require upgrading the roads and more frequent maintenance.

Mitigation Measures:

In accordance with General Plan Policy 39.3.1 and 39.3.2, the County should monitor traffic on these roads, identify trends in use and traffic flow, and continue its efforts to improve traffic congestion. Pursuant to General Plan Policy 37.1.1 and 37.1.2, provisions of this Area Plan shall be coordinated with the Monterey County Transportation Plan and other regional transportation planning by the County Transportation Commission. General Plan Policy 37.2.1 states that transportation demands shall not be allowed to exceed LOS C for existing transportation facilities unless appropriate increases in capacities are provided for. Pursuant to General Plan Policy 39.1.3, rights-of-way shall be planned for. A sufficient right-of-way should be acquired to maintain an adequate level of service and to maintain landscaping that blends into and complements the scenic corridor.

Land Use Change #1

Seismic Impacts:

Several parcels are located in high hazard zone, occurring on recent alluvium. These parcels are subject to severe groundshaking or liquefaction in the event of an earthquake.

Mitigation Measures:

General Plan Policies 15.1.4, 15.1.8, and 15.1.11 will provide specific information and allow the County to condition permissible development to mitigate hazards.

Hydrology/Soils Impacts:

Portions of the subject parcels are located within or near the 100 year floodplain of the Salinas River and the area of inundation in the event of an upriver dam failure. Development will result in impervious surfaces that increase runoff volumes on the subject parcels. Potential siltation of Salinas River.

Soils may pose constraint to development or the use of septic system leachfields.

Mitigation Measures:

General Plan Policies 5.2.1 and 16.2.3, and the County Floodplain Ordinance will regulate development in the floodplain. General Plan Policy 16.2.2. restricts land use in floodplain. The geologic and soils report required by General Plan Policy 15.1.11 should discuss the particular sites suitability for development and recommend design and engineering measures necessary to comply with the latest

adopted Uniform Building Code. Area Plan Policy 16.2.1.1 will protect natural drainages. Use of septic systems will be contingent upon obtaining a permit from the Department of Environmental Health and subject to all conditions of the permit.

Water Supply and Quality Impacts:

The Land Use Change will result in a demand of 5.34 acre feet per year. Increased runoff and soils unsuited to septic systems increase the potential for ground- or surface water contamination. Runoff from residential sites may also contain inorganic contaminants from parked vehicles.

Mitigation Measures:

New wells and septic systems will require permits from the County Environmental Health Department. Area Plan Policy 16.2.1.1 (CSV) and the County Floodplain Ordinance will regulate drainage and runoff. Environmental review consistent with CEQA should occur where applicable.

Schools Impacts:

It is estimated that Map Change #1 will generate 10 additional elementary students and 7 high school students in school districts already exceeding capacity.

Mitigation Measures:

Govt. Code Section 53081 allows school districts to impose developer fees for the construction of school facilities.

Land Use Change #2

Transportation Impacts:

AMBAG estimates that about 126 vehicle trips per day could be generated by 26 high density residential units.

Mitigation Measures:

General Plan Policy 39.3.1, 39.3.2, and 39.4.1 direct the County to monitor traffic flow and improve congestion with priority given to arterial that carry agricultural goods.

Public Services - Schools Impacts:

65 elementary school students and 21 high school students are estimated approximately 8 students requiring special education.

Mitigation Measures:

Govt. Code Sec. 53081 allows school districts to assess developer fees to fund improvements.

Agricultural Preservation Impacts:

High density residential development as proposed is incompatible with the row crop operations on the parcel south of South Street.

Mitigation Measures:

General Plan Policies 4.1.3, 27.3.2, 27.3.3, and 30.0.2 will substantially mitigate potential "nuisances". The County should investigate a "right-to-farm" type ordinance limiting the liability of farmers in nuisance suites against agricultural operations.

Land Use Change #3

Visual Impacts:

The Land Use Change will extend the commercial strip and may result in additional traffic and vehicle parking along Grant Street. New lighting may create glare for adjacent residences.

Mitigation Measures:

General Plan Policy 39.2.5 and 26.1.20 requires that on-street parking be limited and that new lighting minimize glare to adjacent properties.

Transportation Impacts:

Additional traffic created by intensified commercial uses along Grant Street may decrease the Level of Service on the highway exits and Grant Street.

Mitigation Measures:

See Mitigation Measures under Transportation, Land Use Change #2.

Public Services -

Water Supply and Sewage Treatment Impacts:

The Land Use Change may result in a water demand and concomitant wastewater generation of between 18 and 26 acre-feet per year.

Mitigation Measures:

The Water and Sanitation Districts currently have adequate capacity to accommodate this increase. New users will pay for services required.

Police Protection Impacts:

Additional commercial uses will increase the probability of theft.

Mitigation Measures:

General Plan Policy 46.2.1 requires the Sheriff's Department to organize crime prevention techniques and conduct security surveys and public awareness programs. The Sheriff's Department should review development proposals and make recommendations regarding crime prevention.

Land Use Change #4

Geology/Soils Impacts:

Structures built within the Land Use Change Area may be subject to severe groundshaking or liquefaction. Soils may pose a constraint to construction or the use of septic systems.

Mitigation Measures:

General Plan Policies 3.1.3, 3.2.2, 15.1.4, 15.1.8, 15.1.10, and 15.1.11 require reports and special engineering in hazard areas where development is permitted. Use of septic systems will be subject to the conditions and approval of the County Department of Environmental Health.

Hydrology Impacts:

Portions of the Land Use Change area are located within the 100 year floodplain. Development will result in increased runoff from impervious surfaces, possible disruption of natural drainage courses and siltation of Chualar Creek. High groundwater increases the likelihood of septic system leachate contaminating surface or groundwater.

Mitigation Measures:

Area Plan Policy 16.2.1.1 (CSV) restricts disturbance of natural drainage courses. General Plan Policy 5.2.1 requires owners of property adjacent to waterways or responsible agencies to maintain vegetation or provide other suitable means of preventing bank erosion or siltation. General Plan Policy 16.2.3 and the County Floodplain Ordinance regulate development in the floodplain and require project review by the Monterey County Flood Control and Water Conservation District. General Plan Policy 15.1.13 requires that septic leachfields and drainage be directed away from unstable slopes.

Vegetation/Wildlife Impacts:

Potential for disruption of riparian habitats and loss of habitat for some species. Human activities may exacerbate lack of regeneration of oak trees.

Mitigation Measures:

Area Plan Policy 11.1.6 and General Plan Policy 7.1.2 can mitigate impacts by identifying environmentally sensitive areas and requiring easement or other means of protection. Additional environmental review pursuant to CEQA shall occur.

Visual Impacts:

Chualar Canyon is a Visually Sensitive area. The scenic qualities may be degraded by the intrusion of inharmonious or discordant elements.

Mitigation Measures:

General Plan Policies 7.2.1, 26.1.9, and 26.1.10 mitigate the impact of development in visually sensitive areas. Area Plan Policy 16.1.6.1 requires that development be subject to

design review.

Air Quality Impacts:

AMBAG estimates home based emissions from the projected buildout in the Canyon will be:

Carbon Monoxide	13 tons/year
Hydrocarbons	1 tons/year
Nitrogen Oxides	0 tons/year

Dust and exhausts from heavy equipment will degrade localized air quality during construction.

Mitigation Measures:

General Plan Policies 20.1.2, 20.1.3, 20.2.2, 20.2.3, 20.2.5, and 38.1.1 direct the County to encourage programs and follow the directives of the Monterey Bay Unified Air Pollution Control District that will mitigate impacts to an acceptable level.

Water Supply and Quality Impacts:

New residential development will require approximately 17 acre feet of water per year. The spotty occurrence of groundwater in the Canyon may make water supply to new parcels uncertain. Excessive pumping of relatively small aquifers occurring in fractured bedrock could result in the depletion of such aquifers. Sheetwater and high groundwater increases the possibility of ground- or surface-water contamination with septic system leachate.

Mitigation Measures:

Area Plan Policies 5.1.2.1 and 6.1.3 will mitigate impacts on water resources. Hydrology and groundwater studies should be presented during the application process to implement Mitigation Measures 1 and 2. Pursuant to General Plan Policy 15.1.13, drainage plans shall be required which direct runoff and drainage away from unstable slopes. Septic systems will be subject to the permit requirements of the Department of Environmental Health. Pursuant to General Plan Policies 21.1.7 and 21.1.9, the County will monitor surface and groundwater quality and support investigations of and remedies to pollution problems.

Transportation Impacts:

AMBAG estimates that 41 additional residences in Chualar Canyon will yield 409 vehicle trips per day. The increase in the number of vehicles may result in poor traffic circulation near the narrow bridges and force vehicles to pull over or wait for on-coming traffic.

Mitigation Measures:

General Plan Policy 39.3.1 and 39.3.2, direct the County to monitor traffic flow and improve congestion. General Plan Policy 37.2.1 prohibits new development from exceeding an acceptable level of service (LOS C) and General Plan Policy 39.1.3 prohibits development from precluding the timely development of rights-of-way. Individual subdivisions will

be reviewed and may be required to make necessary roadway improvements.

Public Services -

Fire Protection Impacts:

The Land Use Change is located in an area of Very High fire hazards. Additional residential development in the Canyon will increase the possibility of an accidental fire. New development will place a greater demand on the existing level of service.

Mitigation Measures:

General Plan Policy 17.3.3 requires that all new development not located within 15 minutes response time from a fire station provide on-site fire protection systems or development may only take place at the lowest density allowed for the parcel by the General Plan. Pursuant to General Plan Policy 17.3.4, all new development in the Canyon shall be contingent upon the provision of water supplies for fire suppression. Water systems constructed shall be designed to the standards shown in Table 2 on page 62 of the County General Plan (General Plan Policy 17.3.5). All new development located within 15 minutes response time from a fire station shall be required to annex to the appropriate fire district (General Plan Policy 17.3.6).

Area Plan Policy 46.1.2 requires that emergency access problems be identified and addressed before development is allowed to occur. All roadways shall conform to the standards established in the County General Plan.

General Plan Policies 17.4.2, 17.4.4, 17.4.7, 17.4.12, and 17.5.1 regulate development and require improvements that will further mitigate fire hazards.

Schools Impacts:

It is estimated that 103 students may be added to the Chualar Union Elementary School District and 33 students added to the Gonzales High School District. 13 of these students may require special educational facilities.

Mitigation Measures:

see Mitigation Measures under Schools, Land Use Change #2.

Archaeological Resources Impacts:

Chualar Canyon has been designated as a Highly Sensitive Area on the Area Plan's Cultural Resources Map. Construction and development activities could result in the destruction or degradation of historic cultural resources.

Mitigation Measures:

General Plan Policies 12.1.3 and 12.1.6 require archaeological field inspections resulting in appropriate mitigation measures. General Plan Policy 12.1.7 requires

that all available measures be explored to avoid development on archaeological sites.

Land Use Change #5

Visual Impacts:

Buildout of the land use change area will increase the area of rural-suburban landscape. Residences located along Twelfth and Walnut Streets will lose their open space views to the west and north respectively.

Mitigation Measures:

None

Agricultural Preservation Impacts:

The Land Use Change results in the loss of about 160 acres of commercial farmland.

Mitigation Measures:

None.

Land Use Change #6

Geology/Soils Impacts:

The potentially active Reliz Fault System passes through the Canyon. Structures built within the Land Use Change Area may be subject to severe groundshaking. Soil types exhibit severe constraints to the use of septic systems. Constraints to construction of dwellings are severe in several areas and moderate in other areas.

Mitigation Measures:

As specified in General Plan Policies 15.1.1-4, 15.1.8, and 15.11.10, seismic hazard reports shall be required within 1/8 mile of the Reliz Fault. Special engineering may be required.

Hydrology Impacts:

The increase in impermeable surfaces will increase runoff volumes and rates. Improperly handled runoff may cause erosion of the slopes or banks resulting in siltation of Reliz Creek. Grading for new construction may disrupt the natural drainage course. On-site water supplies for development will be hard to find in portions of the Land Use Change Area. High groundwater in some areas may result in septic system leachate contaminating surface or groundwater resources.

Mitigation Measures:

Area Plan Policy 16.2.1.1 (CSV) will restrict disturbance of natural drainage courses and their banks and vegetation. General Plan Policy 5.2.1 requires owners of property adjacent to waterways or responsible agencies to maintain vegetation or provide other suitable means of preventing

bank erosion or siltation. Development should be discouraged adjacent to the Creek to deter dumping, degradation, and subsequent erosion. Scenic, open space, or conservation easements should be encouraged along the creek and areas of steep slope. General Plan Policy 15.1.13 requires that septic leachfields and drainage be directed away from unstable slopes.

Energy Conservation Impacts:

The increased number of residential units will consume more significantly more energy than the existing number of units.

Mitigation Measures:

General Plan Policies 13.3.1, 13.3.2, 13.3.3, 13.4.3, 14.2.1, and 38.1.4, encourage the use of passive and active solar energy systems and alternative forms of transportation to reduce residential energy consumption.

Visual Impacts:

Low density development of the mouth of the Canyon will create an inharmonious element in the essentially rural, bucolic visual fabric of the canyon. The impact of this land use change will depend upon the actual density of development.

Mitigation Measures:

Where parcels occur in visually sensitive areas, design review shall occur pursuant to Area Plan Policy 26.1.6.1. Also see Mitigation Measures 2-4, Visual Impacts, Land Use Change #4

Air Quality Impacts:

Development in the Canyon will result in localized degradation of air quality. AMBAG estimates projected buildout of the Land Use Change will result in the following emissions:

Carbon Monoxide	42 tons/year
Hydrocarbons	4 tons/year
Nitrogen Oxides	2 tons/year

Dust and exhausts from heavy equipment will degrade localized air quality during construction.

Mitigation Measures:

see Mitigation Measures, Air Quality, Land Use Change #4

Water Quality and Supply

Water demand at maximum buildout will be approximately 51.8 acre-feet per year. On-site water supplies may not be available for some parcels. High groundwater near the Creek, steep slopes, and the shallow depth to rock increase the likelihood of septic system leachate contaminating surface or groundwater resources.

Mitigation Measures:

see Mitigation Measures, Water Supply and Quality,
Land Use Change #4

Noise Impacts:

Ambient noise levels in the area will increase due to intensified residential use.

Mitigation Measures:

Noise levels in the area should be monitored and maintained consistent with the noise parameters identified in General Plan Policy 22.2.1 on page 81 of the County General Plan.

Transportation Impacts:

AMBAG estimates that 121 additional residences in Reliz Canyon will yield 1,308 vehicle trips per day. This would more than double the AADT for Reliz Canyon Road and Elm Avenue near Reliz Canyon Road. The LOS for Elm Avenue would probably decrease. Traffic at the Arroyo Seco Bridge is currently at LOS F.

Mitigation Measures:

The County Department of Public Works indicates that improvements, including widening, to both Reliz Canyon Road and Elm Avenue may be necessary. General Plan Policies 37.1.1 and 37.1.2 require the County Transportation Commission to coordinate the provisions of the Central Salinas Valley Area Plan with the Monterey County Transportation Plan and other regional transportation plans. The current County Transportation Plan lists reconstruction of the Elm Avenue Bridge (#321) in its Long Range Program.

also see Mitigation Measures, Transportation, Land Use Change #4

Public Services -

Fire Protection Impacts:

Additional residential development in the Canyon will increase the possibility of an accidental fire. New development will also place a greater demand on the existing level of service.

Mitigation Measures:

see Mitigation Measures, Fire Protection, Land Use Change #4

Schools Impacts:

It is estimated that 242 elementary school and 18 high school students could be generated by new development, depending on housing type, household income, and other variables. Approximately 26 students might require special education.

Mitigation Measures:

see Mitigation Measures under Schools, Land Use Change #2.

Archaeological Resources Impacts:

Reliz Canyon is an area which has been designated as a High Sensitivity Zone. Construction and development activities could result in the destruction or degradation of historic cultural resources. Additional residents in the area may result in increased visitors to the sites which may in turn result in degradation or loss of archaeological resources.

Mitigation Measures:

see Mitigation Measures, Archaeological Resources
Land Use Change #4

Agricultural Preservation Impacts:

Residential development near the mouth of Reliz Canyon may restrict use of the Farmlands of Statewide Importance near the mouth of the Canyon.

Mitigation Measures:

General Plan Policies 4.1.3 and 27.3.3 require the protection of agricultural lands from incompatible land uses through appropriate site design and the dedication of buffer zones.

Land Use Change #7

Geology/Soils Impacts:

Land Use Change #7 is in a moderate to moderately high hazard area with respect to potential earthquake damage. Potential damage to foundations, concrete slabs, patios, sidewalks, and streets due to shrink-swell properties of soils.

Mitigation Measures:

General Plan Policy 15.1.7 requires liquefaction investigations for multi-family dwellings over 4 units. Foundations should be designed by a soils engineer who should also supervise their construction.

Hydrology Impacts:

High density residential use will result in a large portion of the Land Use Change area being covered with impervious surfaces resulting in increased storm runoff. Improperly handled runoff may cause erosion of soils near receiving drainages.

Mitigation Measures:

Suitable means of dissipating the energy of storm runoff should be installed to minimize erosion and siltation of natural drainage courses pursuant to the County Erosion Control Ordinance.

Energy Conservation Impacts:

The increased number of residential units will consume more energy than the existing number of units. Domestic energy consumption is primarily due to transportation, heating and cooling, and household appliances.

Mitigation Measures:

The County should encourage the use of passive and active solar energy systems.

Visual Impacts:

High density residential development would preclude the view between blocks and result in a significant loss of open space. High density development will detract from the county-suburban setting by creating a more urban impression. An increase in the use of night-time and outdoor lighting will create more glare for residents of adjacent developments and surrounding hillsides.

Mitigation Measures:

Trees should be planted along the streets to alleviate visual impacts of high density residential buildings and street-parked vehicles. Adequate off street parking should be provided for all residential units. New subdivisions should contain Covenants, Conditions, and Restrictions prohibiting vehicles parked on the street for more than 48 hours. General Plan Policy 26.1.20 requires that additional street lights shall be of a design which reduces glare for surrounding residences.

Air Quality Impacts:

High density residential development of the Land Use Change area will incrementally increase the amount of air pollutants in the Salinas Valley and the Monterey - Santa Cruz - San Benito Air Basin as a whole. The main source of air pollutants will be vehicle trips. AMBAG estimates home based emissions at buildout as follows:

Carbon Monoxide	15 tons per year
Hydrocarbons	1 ton per year
Nitrogen Oxides	0 tons per year

Mitigation Measures:

Encourage the implementation of the Pine Canyon Greenway providing bicycle routes from Pine Canyon to King City. Bike lane access to the Pine Canyon Store should be provided to reduce vehicle trips for small grocery items. Also see Mitigation Measures, Air Quality, Land Use Change #4.

Water Quality and Supply Impacts:

High density development allowed under Land Use Change #7 may result in further degradation of Pine Canyon Creek and the Salinas River by contaminants carried in storm runoff. Additional residential uses will incrementally exacerbate the overdraft of the Upper Valley sub-basin and the Salinas Valley Basin in general. A water demand of 34.5 acre-feet per year will be required if the maximum of 80 additional units are built in the map change area.

Mitigation Measures:

General Plan Objectives 6.1 and 6.2 and Policy 6.2.1 state

the County's objective to eliminate the overdraft of groundwater resources and develop supplemental water supplies. Pursuant to Policies 6.1.2, water conservation measures shall be encouraged. High density projects should not be approved until sewage treatment capacity is available for the new development.

Noise Impacts:

High density multi-family dwellings may result in an ambient noise level that exceed the County standards for individual units. The increased number of households in the Land Use Change area will probably result in an increase in ambient noise levels due to increased vehicle use in the area. Residences closer to Pine Canyon Road may occasionally experience noise levels higher than 60 dB(A).

Mitigation Measures:

Pursuant to General Plan Policy 22.2.6, a noise level analysis of the Land Use Change area should be conducted to determine the site's noise characteristics. General Plan Policies 22.2.1 and 22.2.2, will mitigate noise impacts and noise levels by requiring noise analyses and special construction techniques. A sound wall between Pine Canyon Road and residential property may be necessary.

Transportation Impacts:

AMBAG has estimated that the 80 additional units made possible by Land Use Change #7 will result in 486 additional vehicle trips per day. This additional traffic will incrementally decrease the Level of Service along the loser portion of Pine Canyon Road. A decrease in level of service for the section of Pine Canyon Road north of Merritt Street may impact the segment of Pine Canyon Road south of Merritt Street which is currently at LOS D, by further decreasing the level of service.

Mitigation Measures:

General Plan Policy 20.1.2 encourages public transit and alternative methods of transportation. Accordingly, the Pine Canyon Greenway should be completed, providing bicycle routes from Pine Canyon to King City. Bike lane access to the Pine Canyon Store should be provided to reduce vehicle trips for small grocery items. Also see Mitigation Measures, Transportation, Land Use Change #4

Public Services

Fire Protection Impacts:

High density residential development will increase the potential for an accidental fire. New development will also place an incrementally greater demand on the existing level of service.

Mitigation Measures:

see Mitigation Measures, Fire Protection, Land Use Change #4

Police Protection Impacts:

The land use change may add a significant number of new residences to Patrol Beat XI. Residents in this patrol beat will have to compete with a larger number of homes for police services. The high density designation represents an urban level of development which will be served by rural level of police protection services.

Mitigation Measures:

Police protection services should be increased in the Pine Canyon area of Patrol Beat XI. Also see Mitigation Measures, Police Protection, Land Use Change #3.

Schools Impacts:

Enrollments at King City Union School District currently exceed facility capacity. Additional residential development could generate 120 to 160 additional elementary school students, depending on housing type, household income, and other variables. Approximately 12 high school students will be generated. Approximately 15 of these students will require special educational facilities.

Mitigation Measures:

General Plan Policy 47.1.3 states that the County Office of Education shall encourage coordination between school districts experiencing increasing and declining enrollments to provide for the reallocation of surplus facilities in a cost effective manner. Pursuant to General Plan Policy 47.1.2, the County shall assist school districts in reserving sites for future schools. School districts may impose developer fees on new residential construction to finance the construction and rehabilitation of temporary and permanent facilities (Govt. Code Sec. 53081).

Solid Wastes Impacts:

Additional residences resulting from Land Use Change #7 will incrementally add to the overall volume of wastes and shorten the life-span of the Jolon Road Landfill.

Mitigation Measures:

The County should promote recycling programs and industries.

Land Use Change #8

Geology/Soils Impacts:

Damage may occur to foundations, concrete slabs, patios, and roads due to seismic disturbances, slope, low soil strength, and shrink swell properties of soils. Soils in the land use change area are not suited to the use of septic systems because of steep slopes and slow percolation rates. Improperly functioning septic systems may result in pollution of ground or surface water or other health hazards.

Mitigation Measures:

General Plan Policies 3.1.1, 3.1.3, and 3.2.2, as well as the County Erosion Control Ordinance, provide for mitigation of erosion problems and constraints posed by soils. Structures may require special engineering considerations in design and construction. General Plan Policy 15.1.13 requires septic leachfields and drainage plans to direct runoff and drainage away from unstable slopes. Also see Mitigation Measures, Geology/Soils, Land Use Change #4

Hydrology Impacts:

Grading for new construction may disrupt natural drainage courses. Impervious surfaces will increase runoff volumes. Improperly handled runoff may cause erosion of natural drainage courses and increase siltation in Pine Canyon Creek or the Salinas River. High groundwater in the land use change area in conjunction with the soil types and slopes increases the likelihood of septic system leachate contaminating surface or groundwater resources. The steep slopes down to the Creek in many places encourages the dumping of refuse and garbage and lateral erosion.

Mitigation Measures:

Area Plan Policy 16.2.1.1 (CSV) will restrict disturbance of natural drainage courses. Development should be discouraged adjacent to the Creek to discourage dumping, degradation, and subsequent erosion of the natural banks. General Plan Policy 5.2.1 requires that owners of property adjacent to waterways or responsible agencies shall maintain vegetation or provide other suitable means of preventing bank erosion or siltation. Erosion control plans shall be required pursuant to the County Erosion Control Ordinance. The County Floodplain Ordinance requires a 50 foot setback from the Creek. Easements along the riparian corridor should be encouraged. The Pine Canyon Greenway should be promoted in the review of future development proposals. Use of septic systems will be subject to the conditions and approval of the County Department of Environmental Health. The County should also investigate the appropriateness of a comprehensive storm drainage plan for Pine Canyon pursuant to General Plan Policy 16.2.7.

Vegetation/Wildlife Impacts:

Development near or adjacent to the riparian corridor may disrupt riparian habitats, resulting in a loss of habitat used by native and migratory birds, mammals, and amphibians for foraging, shelter, and nesting sites. Land Use Change #8 may remove a significant amount of the 1,765 acres from use as habitat for mammals found in Pine Canyon.

Mitigation Measures:

Area Plan Policy 11.1.6 states that the County should identify environmentally sensitive areas in the Planning Area. Pursuant to General Plan Policies 7.1.1, 9.1.1, and

9.1.2, development should be carefully planned in areas with a particular value to wildlife and wildlife reproduction, and shall provide for the conservation and maintenance of the plant communities. Area Plan Policy 16.2.2.1 will mitigate impacts near the riparian corridor. General Plan Policy 7.1.2 encourages the protection of limited or threatened plant communities through dedications of permanent conservation easements and other appropriate means. Environmental review consistent with CEQA shall occur where applicable.

Energy Conservation Impacts:

The increased number of residential units will consume more energy than the existing number of units. Domestic energy consumption is primarily due to transportation, heating and cooling, and household appliances.

Mitigation Measures:

The County should encourage the use of passive and active solar energy systems. Project proposals should be evaluated to provide optimum solar access to all proposed units.

Visual Impacts:

Scenic Quality of this portion of the Canyon may be degraded by the intrusion of inharmonious or discordant sights. The existing rural character may be lost to a suburban landscape. The impact of this land use change will depend upon the actual density of development.

Mitigation Measures:

Area Plan Policy 26.1.6.1 (CSV) requires that landscaping, building design, and siting of developments in the sensitive and highly sensitive areas of the Visual Sensitive Map shall be subject to design review to insure the visual integrity of the area. General Plan Policy 7.2.1 states that landowners and developers shall be encouraged to preserve the integrity of existing terrain and natural vegetation in visually sensitive areas such as hillsides and ridges.

Air Quality Impacts:

Air quality in the Canyon and the air basin will be degraded, primarily due to auto emissions. AMBAG estimates home based emissions from the projected buildout of this portion of Pine Canyon will be:

Carbon Monoxide 273 tons/year
Hydrocarbons 11 tons/year
Nitrogen Oxides 14 tons/year

Dust and exhausts from heavy equipment will degrade localized air quality during construction projects.

Mitigation Measures:

Pursuant to General Plan Policies 20.1.2 and 38.1.1, the County shall support implementation measures such as alternative modes of transportation to reduce air pollution from transportation sources. The County should encourage

Monterey Salinas Transit to extend service to King City and Pine Canyon. A roadside tree program and maintenance of vegetated areas pursuant to General Plan Policy 20.1.3 will help mitigate localized air pollution. The Pine Canyon Creek Greenway should be extended up the Canyon to provide access to residential areas.

Water Supply and Quality Impacts:

Additional residential uses will incrementally exacerbate the overdraft of the Upper Valley sub-basin. Assuming an average household water consumption of .411 acre-feet per year, Land Use Change #8 would create a demand for an additional 346 acre-feet per year. Portions of the Land Use Change area are outside Little Bear's service area. Groundwater supplies in these areas may be inadequate with respect to quality and supply.

Because of the severe constraints posed by soils and slope, use of septic systems in certain areas may further degrade water resources within the Canyon. Contaminants carried in storm-water runoff may also degrade water quality.

Mitigation Measures:

General Plan Objectives 6.1 and 6.2 and Policy 6.2.1 state the County's objective to eliminate the overdraft of groundwater resources and develop supplemental water supplies. Area Plan Policy 6.1.3 (CSV) requires that new development shall only be approved in areas with adequate water supplies. Pursuant to General Plan Policy 6.1.2, water conservation measures shall be encouraged. Proposals for new development in the Land Use Change Area should be required to show that an adequate water supply at adequate pressure exists. Where water pressure is found to be inadequate, the developer should be required to improve the infrastructure to the development.

Septic system permits shall be subject to the conditions established by the County Department of Environmental Health. General Plan Policy 21.3.3 prohibits the division of land or use permits for residential uses without proof that an adequate waste disposal system can be developed. The County Erosion Control Ordinance and General Plan Policy 21.2.3 require oil, grease, or silt traps, or other suitable means to protect water quality for any residential development which will require 20 or more parking spaces. Pursuant to General Plan Policy 15.1.13, the County shall require septic leachfields and drainage plans to direct runoff and drainage away from unstable slopes.

The County Flood Control and Water Conservation District recommends that developers and Little Bear Water Company should be required to cooperate with the County Flood Control and Water Conservation District in a program of water conservation and development of new water supplies.

Noise Impacts:

Ambient noise levels in the area will increase due to the intensification of use. The primary noise source will be increased automobile traffic.

Mitigation Measures:

Noise levels in the area should be monitored and maintained consistent with General Plan Policy 22.2.1 which requires new development to conform to the noise parameters on page 81 of the County General Plan.

Transportation Impacts:

AMBAG estimates that the 842 additional units possible under Land Use Change #8 will result in 8,419 additional vehicle trips per day. The County Department of Public Works estimates that the additional vehicle trips at buildout will reduce the Level of Service west of Merritt Street to LOS "E".

Mitigation Measures:

General Plan Policy 38.1.4 encourages the implementation of alternative sources of transportation. The Pine Canyon Greenway could provide bicycle routes from Pine Canyon to King City. Bike lane access to the Pine Canyon Store should be provided to reduce vehicle trips for small grocery items.

The County Department of Public Works states that some improvements to Pine Canyon Road will become necessary as traffic volumes increase. Specific improvements shall be determined by the County Department of Public Works during the review of individual project proposals. General Plan Policies 38.1.5 and 39.1.2 state that adequate traffic capacity shall be a criterion for development consideration and that the cost of new roads shall be borne as equitably as possible among benefiting property owners. Pursuant to General Plan Policy 38.1.3, uses that would preclude the timely development of rights-of-way shall be prohibited.

Public Services -

Fire Protection Impacts:

Development of the Canyon will increase the possibility of an accidental fire. New development will also place a greater demand on the existing level of service. Private roads may not be adequate to provide emergency access to new residential developments.

Mitigation Measures:

see Mitigation Measures, Fire Protection, Land Use Change #4

Police Protection Impacts:

The land use change may add a significant number of new residences to Patrol Beat XI. Residents in this patrol beat will have to compete with a larger number of homes for for

police protection.

Mitigation Measures:

see Mitigation Measures, Police Protection, Land Use Change #7

Schools Impacts:

Enrollments at King City Union School District currently exceed facility capacity. Additional residential development could generate 1,263 to 1,694 additional students at maximum buildout, depending on housing type, household income, and other variables. Approximately 126 additional high school students would also be generated. New residential development will also generate approximately 84 additional students who will require special educational facilities.

Mitigation Measures:

see Mitigation Measures, Schools, Land Use Change #7

Solid Wastes Impacts:

Additional residences resulting from Land Use Change #8 will incrementally add to the overall volume of wastes and shorten the life-span of the Jolon Road Landfill.

Mitigation Measures:

The County should promote recycling programs and industries.

Archaeological Resource Impacts:

Most of the area addressed in Land Use Change #8 lies within a highly sensitive archaeological zone. Construction and development activities could result in the destruction or degradation of historic cultural resources. Additional residents in the area may result in increased visitors to the sites which may in turn result in degradation or loss of archaeological resources.

Mitigation Measures:

see Mitigation Measures, Archaeological Resources, Land Use Change #4

Land Use Change #9

Geology/Soils Impacts:

Damage may occur to foundations, concrete slabs, patios, and roads due to seismic disturbances, slope, low soil strength and shrink swell properties of soils.

Soils in the land use change area are not suited to the use of septic systems because of steep slopes, depth to rock, and slow percolation rates. Improperly functioning septic systems may result in pollution of ground or surface water and other health hazards.

Mitigation Measures:

see Mitigation Measures, Geology/Soils, Land Use Change #8

Hydrology Impacts:

Grading for new construction may disrupt natural drainage courses. Impervious surfaces will increase runoff volumes on individual building sites creating site specific erosion problems. Improperly handled runoff may also cause erosion of natural drainage courses and increase siltation in Pine Canyon Creek. High groundwater in conjunction with the soil types and slopes increase the likelihood of septic system leachate contaminating surface or groundwater resources. The steep slopes down to the Creek in many places encourages the dumping of refuse and garbage and lateral erosion.

Mitigation Measures:

see Mitigation Measures, Hydrology, Land Use Change #8

Vegetation/Wildlife Impacts:

Development and human activities may disrupt riparian habitats. Development in other areas of the Canyon will encroach upon the habitat of larger mammals requiring sizable ranges. Domestic animals such as dogs and cats will disturb native wildlife providing additional inducement for native species to abandon this portion of Pine Canyon. Animals migrating from this site to find new habitats will result in deaths of young, old and weaker animals due to increased competition for new territory, food, shelter, and nesting areas. Increased human habitation of this area may result in the dumping of rubbish and other debris, including cuttings from non-native plants which may seed the area and change its flora and fauna.

Increased human habitation of the area may also result in the loss of oak trees for use as cordwood which could exacerbate the lack of regeneration of oak seedlings.

Mitigation Measures:

Consistent with Area Plan Policy 11.1.6, the County should identify environmentally sensitive areas within the Central Salinas Valley. Areas expected to receive significant development pressure in the near future, such as Pine Canyon, should be a priority for these studies. Pursuant to General Plan Policies 7.1.1, 9.1.1, and 9.1.2, development should be carefully planned in areas with a particular value to wildlife and wildlife reproduction, and shall provide for the conservation and maintenance of the plant communities.

General Plan Policy 7.1.2 encourages the protection of limited or threatened plant communities through dedications of permanent conservation easements and other appropriate means. To this end, the Pine Canyon Creek Greenway should be extended up Pine Canyon Road to the end of this Land Use Change area.

Environmental review consistent with CEQA shall occur where applicable.

Energy Conservation Impacts:

The increased number of residential units will consume more energy than the existing number of units. Domestic energy consumption is primarily due to transportation, heating and cooling, and household appliances.

Mitigation Measures:

The County should encourage the use of passive and active solar energy systems.

Air Quality Impacts:

Air quality in the Canyon and the air basin will be degraded, primarily due to auto emissions. AMBAG estimates home based emissions from the projected buildout of this portion of Pine Canyon will be:

Carbon Monoxide	31 tons/year
Hydrocarbons	3 tons/year
Nitrogen Oxides	1 tons/year

Dust and exhausts from heavy equipment will degrade localized air quality during construction projects.

Mitigation Measures:

The Pine Canyon Creek Greenway should be extended up the Canyon to provide access to residential areas. Also see Mitigation Measures, Air Quality, Land Use Change #8.

Water Quality and Supply Impacts:

Most of the Land Use Change #9 lies outside the area which can be served by Little Bear Water Company. Private or on-site water supplies will be necessary. Water quality in the upper Canyon is of poor quality. Waste water must be treated on-site. High groundwater and steep slopes increase the risk of contaminating surface and groundwater.

Mitigation Measures:

see Mitigation Measures, Water Supply and Quality, Land Use Change #8

Transportation Impacts:

AMBAG estimates that the 98 additional units possible under Land Use Change #8 will result in 978 additional vehicle trips per day. The County Department of Public Works estimates that the additional vehicle trips at buildout of the Pine Canyon land use changes will reduce the Level of Service west of Merritt Street to LOS "E".

Mitigation Measures:

Extend the Pine Canyon Greenway up the Canyon to the Land Use Change Area thereby providing access to the Greenway's bike lane. The County Department of Public Works states that some improvements to Pine Canyon Road will become necessary as traffic volumes increase. Specific improvements shall be determined by the County Department of Public Works during

the review of individual project proposals. General Plan Policies 38.1.5 and 39.1.2 state that adequate traffic capacity shall be a criterion for development consideration and that the cost of new roads shall be borne as equitably as possible among benefiting property owners. Pursuant to General Plan Policy 38.1.3, uses that would preclude the timely development of rights-of-way shall be prohibited.

Public Services -

Fire Protection -
see Fire Protection, Land Use Change #8

Police Protection -
see Police Protection, Land Use Change #8

Schools Impacts:
Enrollments at King City Union School District currently exceed facility capacity. Additional residential development could result in 147 to 196 additional students should maximum buildout occur. Approximately 15 additional high school students could also be generated. Approximately 10 of these students may require special educational facilities.

Mitigation Measures:
see Mitigation Measures, Schools, Land Use Change #8

Solid Wastes -
See Land Use Change #8

Archaeological Resources Impacts:
Land Use Change #9 lies within a highly sensitive archaeological zone. Construction and development activities could result in the destruction or degradation of historic cultural resources. New residents in the area may increase the number of visitors to archaeological sites which in turn may result in the degradation of these sites.

Mitigation Measures:
See Land Use Change #8

Land Use Change #10

Hydrology/Soils Impacts:
Slow percolation rates, steep slopes, and high groundwater in certain portions of the Land Use Change area increase the likelihood of groundwater contamination from septic system leachates.

Mitigation Measures:
Septic system permits shall be subject to the conditions established by the County Department of Environmental Health. General Plan Policy 15.1.3 requires septic leachfields and drainage plans to direct runoff and drainage

away from unstable slopes.

Land Use Change # 11

Hydrology/Soils Impacts:

New high density residential development will result in increased storm-water runoff. This runoff will be exacerbated by the slow percolation characteristics of the soil. Improperly handled runoff may erode downhill soils.

Mitigation Measures:

Pursuant to General Plan Policy 3.2.2, lands having a prevailing slope above 30 percent shall require adequate special erosion control and construction techniques. Erosion control plans shall be required pursuant to the Monterey County Erosion Control Ordinance. Gutters, storm drains, and detention basins (where necessary) should be required as a condition of subdivision approval.

Energy Conservation Impacts:

The increased number of residential units will consume more energy than the existing number of units. Domestic energy consumption is primarily due to transportation, heating and cooling, and household appliances.

Mitigation Measures:

The County should encourage the use of passive and active solar energy systems. Project proposals should be evaluated to provide optimum solar access to all proposed units.

Visual Impacts:

The open space hillside will be replaced with High Density Residential development between Julius and Starr Streets. While this area is not designated as being visually sensitive and is not technically a ridgetop, development on the foothills will be extremely visible to the residents of the existing community.

Mitigation Measures:

see Mitigation Measures, Visual Impacts, Land Use Change #4

Air Quality Impacts:

Additional development will result in localized degradation of air quality, primarily due to vehicle emissions. AMBAG estimates projected buildout of the Land Use Change will result in the following home based emissions:

Carbon Monoxide	27 tons/year
Hydrocarbons	3 tons/year
Nitrogen Oxides	1 tons/year

Dust and exhausts from heavy equipment will degrade localized air quality during construction projects.

Mitigation Measures:

see Mitigation Measures, Air Quality, Land Use Change #8

Water Supply and Quality Impacts:

New residential development will require approximately 51 acre feet of water per year.

High Density Residential development will require centralized sewage treatment facilities. Additional development allowed by this land use change could generate 24,800 gallons of sewage per day. Expansion of the yet to be built treatment facility may be necessary for high density residential development to occur.

Mitigation Measures:

According to General Plan Policies 21.3.1 and 21.3.3, the County shall support sewage treatment projects that reduce surface and groundwater contamination. Development shall not be permitted without proof of an adequate waste disposal system. The County should, therefore, continue its efforts to bring a sewage treatment facility to San Lucas.

All existing lots of record will have to be given an equitable share of the available capacity of the proposed sewage treatment facility. Should expansion of the treatment facility be required for high density levels of development, the cost of expanding the facility should be borne equitably among future recipients of the expanded capacity.

Transportation Impacts:

AMBAG estimates the additional High Density Residential development will result in 834 additional vehicle trips per day.

Mitigation Measures:

Pursuant to General Plan Policies 38.1.4, 38.1.5, 39.1.3, 39.3.1, and 39.3.2, the County shall monitor traffic, improve congested and critical locations, and encourage alternative forms of transportation.

Public Services -

Water and Sewer - see Water Supply and Quality

Fire Protection Impacts:

Additional residential development will increase the possibility of an accidental fire. New development will also place a greater demand on the existing level of service. Fire insurance rates in San Lucas will be at a maximum until such time as structural fire protection is provided.

Mitigation Measures:

General Plan Policies 17.3.3-6, 17.4.2, 17.4.4, and 17.4.7 shall mitigate fire hazards to an acceptable level. Area Plan Policy 46.1.2 requires that emergency access problems be identified and addressed before development is allowed to occur.

Police Protection Impacts:

The land use change may add a significant number of new residences to Patrol Beat XI. Residents in this patrol beat will have to compete with a larger number of homes for police protection.

Mitigation Measures:

see Mitigation Measures, Police Protection, Land Use Change #9

Schools-

Impacts:

San Lucas Elementary school is currently exceeding capacity. It is estimated that about 248 additional elementary students will be generated at maximum buildout, depending on housing type, household income, and other variables. Approximately 186 additional high school students could also be generated. Approximately 43 students may require special educational facilities.

Mitigation Measures:

see Mitigation Measures under Schools, Land Use Change #2.

Archaeological Resources Impacts:

Several historic sites occur in San Lucas. The High Density land use designation may provide incentive to property owners, or investors to replace existing historical structures with those that may be more appropriate to a more profitable High Density use. Construction and development activities could result in the destruction or degradation of historic cultural resources. Additional residents in the area may result in increased visitors to or use of the sites which may in turn result in degradation or loss of these historic resources.

Mitigation Measures:

Pursuant to General Plan Policy 12.1.6, reasonable mitigation procedures shall be required prior to project approval where development could adversely affect archaeological resources. The historic sites listed in Table 2 should be placed in the Historic Preservation District pursuant to the County Historic Preservation Ordinance (Zoning Ordinance Chapter 20.84) as soon as said ordinance is adopted.

Land Use Change #12

Hydrology/Soils Impacts:

New Medium Density residential development will result in impervious surfaces and increased storm-water runoff. Improperly handled runoff may erode downhill soils, flood or damage downhill development.

Mitigation Measures:

Pursuant to General Plan Policy 3.2.2, lands having a prevailing slope above 30 percent shall require adequate special erosion control and construction techniques. Erosion control plans shall be required pursuant to the Monterey County Erosion Control Ordinance.

Energy Conservation Impacts:

The residential units allowed by the Medium Density Land Use Designation will result in a substantial increase in energy use compared to the existing land use.

Mitigation Measures:

see Mitigation Measures, Land Use Change #11

Visual Impacts:

The open space hillside will be replaced with medium Density Residential development. Development on the foothills will be extremely visible to the residents of the existing community as well as travelers on Highways 198 and 101. The existing rural community will become a much more urban landscape.

Mitigation Measures:

see Mitigation Measure #4, Visual Impacts Land Use Change #4

Air Quality Impacts:

Additional development will result in localized degradation of air quality, primarily due to vehicle emissions. AMBAG estimates at projected buildout of the Land Use Change will result in the following home based emissions:

Carbon Monoxide	81 tons/year
Hydrocarbons	9 tons/year
Nitrogen Oxides	4 tons/year

Dust and exhausts from heavy equipment will degrade localized air quality during construction.

Mitigation Measures:

see Mitigation Measures, Air Quality, Land Use Change #8

Water Supply and Quality Impacts:

New residential development will require approximately 102 acre feet of water per year.

Lot sizes will be 5 times smaller than the one acre minimum require by the Regional Water Quality Control Board for on site septic systems. A centralized sewer system or some other form of waste disposal system is therefore necessary. At 200 gals per unit per day, buildout of Land Use Change #12 will generate 49,400 gallons of sewage per day. Grant funding is available for existing lots of record within the County Water District only. Medium Density development will therefore require expansion of the yet to be built facility.

Mitigation Measures:

The County should continue its efforts to bring a sewage treatment facility to San Lucas. New development shall be required to provide the necessary expansion of sewage treatment facilities to accommodate the demand created. Also see Mitigation Measures, Water Supply and Quality, Land Use Change #11.

Noise Impacts:

Residential development adjacent to Route 198 may be subject to Unacceptable or Conditionally Acceptable noise levels as defined on page 87 of the County General Plan.

Mitigation Measures:

Pursuant to General Plan Policy 22.2.1, development immediately adjacent to Highway 198 which may be in the Conditionally Acceptable range should be undertaken only after a detailed analysis of noise reduction requirements is made. Special construction techniques shall be utilized where necessary.

Transportation Impacts:

The area specifically addressed by Land Use Change #12 is currently undeveloped. New streets will be required to serve new residential parcels. AMBAG estimates that the estimated number of residential units will result in 2499 vehicle trips per day.

Mitigation Measures:

see Mitigation Measures, Traffic Impacts, Land Use Change #11

Public Services -

Water and Sewer - see Water Supply and Quality

Fire Protection -

see Land Use Change #11

Police Protection -

see Land Use Change #11

Schools Impacts:

500 additional students could be generated at maximum buildout, depending on housing type, household income, and other variables. Approximately 375 additional high school students could also be generated. Approximately 87 of these students may require special educational facilities.

Mitigation Measures:

see Mitigation Measures under Schools, Land Use Change #2.

Archaeological/Historic Resources

see Land Use Change #11

Land Use Change 13

Energy Conservation Impacts:

Intensified Commercial use of the Land Use Change Area will result in an increase in energy consumption, primarily for lighting.

Mitigation Measures:

see Mitigation Measures, Energy Conservation, Land Use Change #11

Water Supply and Quality Impacts:

Commercial uses in the Land Use Change area may consume about 7 acre feet of water per year. A corresponding amount of wastewater should be expected. On-site wastewater treatment will not be possible. The proposed sewage treatment facility may need to be expanded to accommodate wastewater flows generated by the commercial uses, depending upon the capacity of the facility.

Mitigation Measures:

see Mitigation Measures, Water Supply and Quality, Land Use Change #11,

Archaeological/Historic Resources Impacts:

The Commercial land use designation may provide incentive to property owners or investors to replace existing historical structures with those that may be more appropriate to the more profitable commercial use. Construction and development activities could result in the destruction or degradation of historic cultural resources. Additional residents in the area may result in increased visitors to or use of the sites which may in turn result in degradation or loss of these historic resources.

Mitigation Measures:

see Mitigations Measures, Archaeological/Historic Resources, Land Use Change #11

Project Description

The project discussed in this EIR is the Central Salinas Valley Area Plan. For the purposes of this EIR, the project essentially consists of supplemental policies and land use changes that will supplement and amend the 1982 county-wide General Plan. The supplemental policies are listed on pages 80 through 85 of the Central Salinas Valley Area Plan text. The environmental effects of these policies are shown on Table EIR-1. The land use changes county-wide General Plan Land Use Map are also listed in Table EIR-1 and further described in Table EIR-2 (pages 7 and 8), and shown on figures EIR-1A and EIR-1B.

The Central Salinas Valley Planning Area encompasses an area of about 857 square miles of Monterey County, extending from north of Chualar to San Lucas in the south, and bordered by the Santa Lucia and Sierra de Salinas mountain ranges to the west and the Gabilan Mountains to the east.

The purpose of the Area Plan is to provide a comprehensive, long-term guide to growth and physical development of the Planning Area.

This EIR will be used by Monterey County officials to evaluate the policies and land use changes contained in the Area Plan. As the lead agency, Monterey County is responsible for adopting the Central Salinas Valley Area Plan. This EIR will also be used by responsible and trustee agencies (including Planning Area cities) to evaluate the impact of the Area Plan upon those areas within their jurisdiction.

Environmental Setting

A description of the Central Salinas Valley Planning Area is given in chapters I and II of the Area Plan's Inventory and Analysis. These chapters contain information regarding the Planning Area's natural resources and environmental constraints to development. In addition, the environmental setting of these policies and map changes with potential adverse environmental effects will be discussed with the impacts and mitigation measures as the appropriate level of detail dictates.

Regional Regulatory Jurisdictions

As a part of Monterey County, the Central Salinas Valley Planning Area is within the jurisdiction of several county-wide and regional planning agencies. Among these agencies are: the Association of Monterey Bay Area Governments (AMBAG); the Central Coast Division of the California Regional Water Quality Control Board; the Monterey Bay Unified Air Pollution Control District; the Monterey County Flood Control and Water Conservation District; and the Monterey County Health Department. In addition to these regional agencies four incorporated cities occur in the Planning Area. Each of the Planning Area cities maintain their own general plans.

Section 65300.5 of the California Government Code requires that Monterey County Area Plans must be integrated and internally consistent with the County-wide General Plan. Section 15125(b) of CEQA requires that an EIR discuss any inconsistencies between the proposed project and applicable regional plans. Such plans affecting the Planning Area include State resource protection acts, the Monterey County Solid Waste Management Plan, the 1982 Air Quality Plan for the Monterey Bay Region, the Mesa Del Rey Airport Land Use Plan, the Monterey County Transportation Plan and the Regional Transportation Improvement Plan. The following regional plans prepared by AMBAG also apply: 208 Water Quality Plan for the Monterey Bay Region and its supplement, 1982 Current Reflections of Water Quality Planning in the Monterey Bay Area, and the Regional Housing Needs Report 1980 to 1990. The actions and impacts of the Area Plan were reviewed with regard to the plans mentioned above to evaluate inconsistencies and determine mitigation measures. These plans are referred to where applicable in the EIR.

CEQA Section 15146(b) states that the degree of specificity in an EIR will correspond to the degree of specificity involved in the underlying activity described in the EIR. The level of specificity discussed in this EIR is therefore general compared to the level of detail possible with a specific project because a variety of specific projects may result from the Area Plan actions.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The Environmental Impacts Matrix presented in Figure EIR-1 identifies the potential environmental effects of the supplemental policies and land use changes contained in the Central Salinas Valley Area Plan. Existing policies and land use designations affecting the Planning Area contained in the county-wide General Plan received previous evaluation and approval through certification of the General Plan EIR in 1982. The supplemental policies contained in the Area Plan are listed in the Matrix by their respective policy numbers. For the purpose of listing in the Matrix, land use changes have been numbered and are defined on Table EIR-2. Land use changes are also shown by number on Figures EIR-1A and EIR-1B. The Matrix classifies environmental effects as "beneficial impact", "adverse impact", or "no change". Only potential "adverse impacts" are addressed in the following discussion of impacts and mitigation measures.

**TABLE EIR-1
ENVIRONMENTAL
IMPACTS
MATRIX**

SUBJECT HEADING	POLICY	Geology/Soils	Hydrology	Vegetation	Wildlife	Energy Conservation	Visual Impacts	Air Quality	Water Supply & Quality	Noise Impacts	Transportation	Public Services & Facilities	Archaeological/Historical Resources	Housing	Agricultural Preservation
NATURAL RESOURCES Geology, Minerals, Soils															
	3.1.4 (CSV)	+	+						+	+	+			+	+
	3.2.4 (CSV)	+													
Water Resources															
	5.1.2.1 (CSV)		+									+			
	6.1.3 (CSV)											+		-	
Environmentally Sensitive Areas															
	11.1.6 (CSV)			+	+										
Archaeological Resources															
	12.1.8 (CSV)												+		
Energy Resources															
	14.3.1 (CSV)					+		+							

(-) Indicates Adverse Impact

(*) Indicates No Significant Impact

(+) Indicates Beneficial Impact

**TABLE EIR-1
ENVIRONMENTAL
IMPACTS
MATRIX**

SUBJECT HEADING	POLICY	Geology/Soils	Hydrology	Vegetation	Wildlife	Energy Conservation	Visual Impacts	Air Quality	Water Supply & Quality	Noise Impacts	Transportation	Public Services & Facilities	Archaeological/Historical Resources	Housing	Agricultural Preservation
ENVIRONMENTAL CONSTRAINTS Seismic, Flood, & Fire Hazards															
	15.1.1.1 (CSV)			+	+							+			
	16.2.1.1 (CSV)	+	+	+					+						
	17.4.13 (CSV)			+	+							+			
Water Quality															
	21.1.2.1 (CSV)								+						
AREA DEVELOPMENT Land Use															
	26.1.4.2 (CSV)*														
	26.1.6.1 (CSV)						+								
	26.1.13.1 (CSV)														+

- (-) Indicates Adverse Impacts
 (*) Indicates No Significant Impact
 (+) Indicates Beneficial Impact

**TABLE EIR-1
ENVIRONMENTAL
IMPACTS
MATRIX**

SUBJECT HEADING	POLICY	Geology/Soils	Hydrology	Vegetation	Wildlife	Energy Conservation	Visual Impacts	Air Quality	Water Supply & Quality	Noise Impacts	Transportation	Public Services & Facilities	Archaeological/Historical Resources	Housing	Agricultural Preservation
AREA DEVELOPMENT															
Land Use	26.1.14.1 (CSV)											+			
	27.2.3 (CSV)					+					+				
	28.1.1.1 (CSV)		-	-	-	-	-	-	-	-	-	-	-		
	30.0.3.1 (CSV)														+
	30.0.7.1 (CSV)	-				-	-	-	-		-	-			-
	35.1.3 (CSV)	+	+	+	+		+								
	35.1.4 (CSV)	+	+	+	+		+								
Holding Capacity	36.0.4 (CSV)	+	+	+	+			+	+	+	+	+			
Transportation	39.3.3 (CSV)					-		-							
	40.1.2 (CSV)						-	-			-				

(-) Indicates Adverse Impact

(*) Indicates No Significant Impact

(+) Indicates Beneficial Impacts

**TABLE EIR-1
ENVIRONMENTAL
IMPACTS
MATRIX**

SUBJECT HEADING		POLICY	Geology/Soils	Hydrology	Vegetation	Wildlife	Energy Conservation	Visual Impacts	Air Quality	Water Supply & Quality	Noise Impacts	Transportation	Public Services & Facilities	Archaeological/Historical Resources	Housing	Agricultural Preservation
Public Services & Facilities	46.1.2 (CSV)											+	+			
	51.1.1 (CSV)												+			
	51.2.5 (CSV)*															

(-) Indicates Adverse Impact

(*) Indicates No Significant Impact

**TABLE EIR-1
ENVIRONMENTAL
IMPACTS
MATRIX**

SUBJECT HEADING		LAND USE CHANGES		Geology/Soils	Hydrology	Vegetation	Wildlife	Energy Conservation	Visual Impacts	Air Quality	Water Supply & Quality	Noise Impacts	Transportation	Public Services & Facilities	Archaeological/Historical Resources	Housing	Agricultural Preservation
MAP UNITS	#1	-	-								-			-		+	
	#2												-	-		+	-
	#3								-				-	-			
	#4	-	-	-	-				-	-	-		-	-	-	+	
	#5								-							+	-
	#6	-	-					-	-	-	-		-	-	-	+	-
	#7	-	-					-	-	-	-	-	-	-	-	+	
	#8	-	-	-	-	-	-	-	-	-	-		-	-	-	+	
	#9	-	-	-	-	-	-	-	-	-	-		-	-	-	+	
	#10		-													+	
	#11	-	-													+	
	#12	-	-					-	-	-	-	-	-	-	-	+	
	#13							-			-				-		

(-) Indicates Adverse Impact

(*) Indicates No Significant Impact

(+) Indicates Beneficial Impact

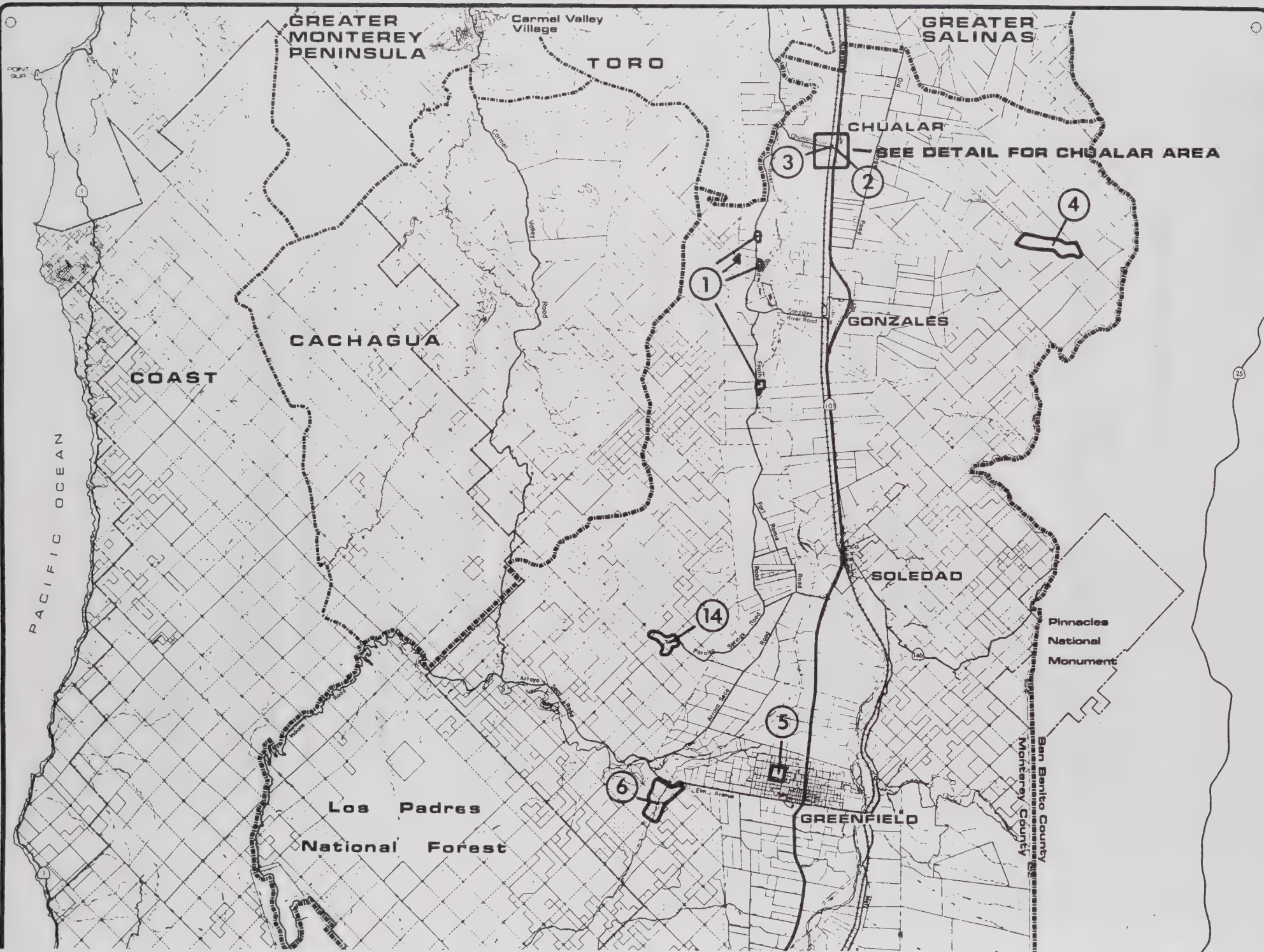
LIST OF PROPOSED LAND USE CHANGES

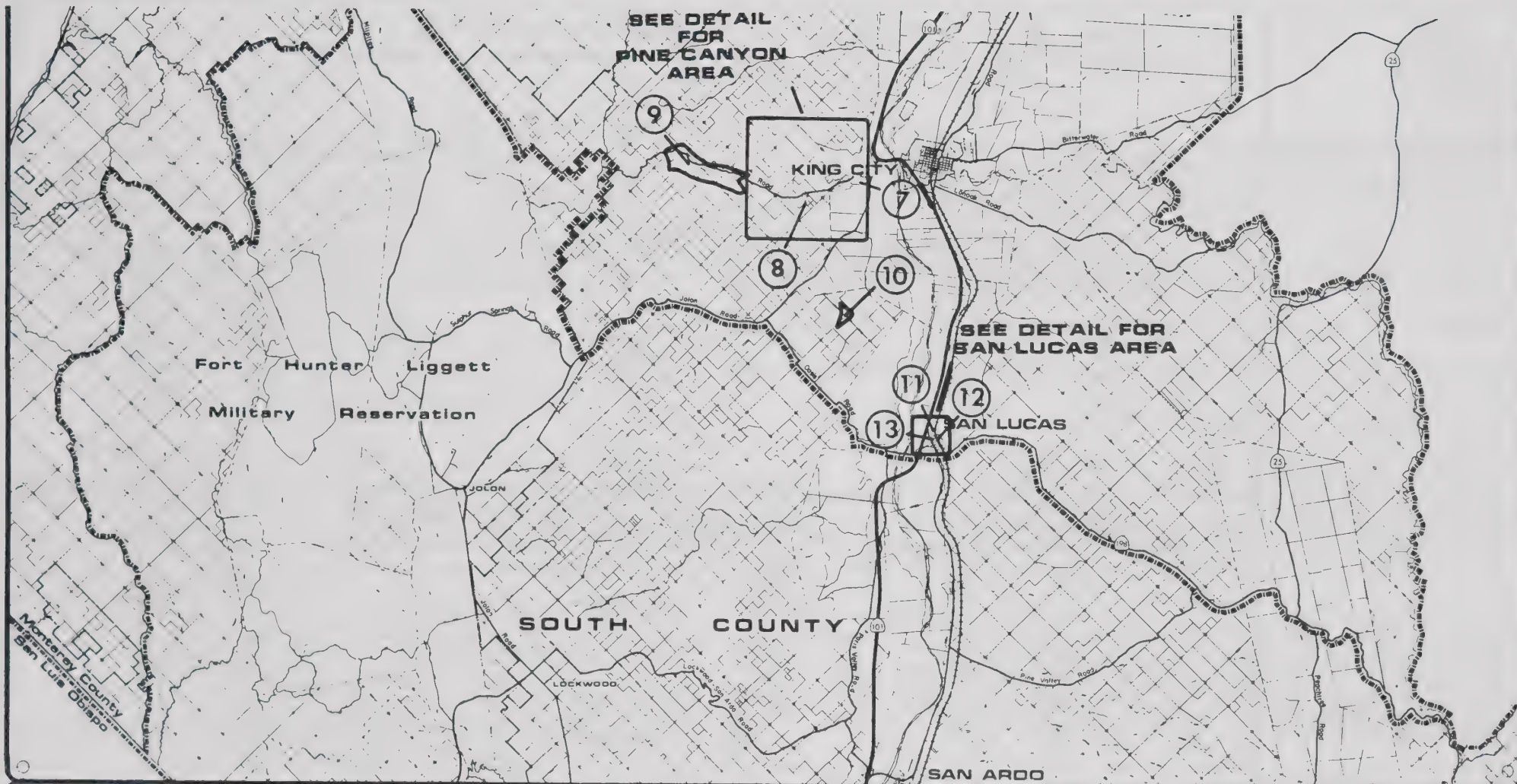
Land Use Change #	Acreage (Approx.)	Existing Use	Existing Units	Area Plan Designation	New Unit Yield	Net Unit Yield
1	.67 ac.	Rural - Vacant	2	Rural Density Residential 5+ acres per unit	13	13
2	24.1 ac.	Residential-High Density	138	High Density Residential 6 units per acre	144	26
3	2.8 ac.	Commercial & Residential	10-Res.	Commercial	60	50
4	454.5 ac.	Rural & Grazing	4	Rural Grazing-10 ac. min.	45	41
5	164.4 ac.	Vinyards & Rural Residential	4	Rural Grazing-10 ac. min.	18	14
6	332.9 ac.	Grazing - Rural	9	Low Density Residential	135	126
7	24.9 ac.	Residential & Vacant	195	High Density Residential 6 units per acre	275	80
8	1764.9 ac.	Watershed, Grazing, & Rural	40	Low Density Residential	881	842
9	1107.4 ac.	Watershed, Grazing, & Rural	12	Rural Grazing-10 ac. min.	110	98
10	54.6 ac.	Rural & Agricultural	1	Rural Grazing - 10 ac. min.	5	4
11	24.6 ac.	Residential	24	High Density Residential 6 units per acre	148	124
12	74.2 ac.	Undeveloped, Grazing	0	Medium Density Residential	250	250
13	1.3 ac.	Commercial, Residential, & Public Facilities	3-Res. 2-Comm. 3-Public Facilities	Commercial	20	
14	See Area Plan Policy 28.1.1.1 (CSV)					

1 - Commercial unit yields based upon 2,000 sq. ft. building sites.

2 - Residential unit yields based upon cross slope for Land Use Change Area. Actual yields may be less depending upon environmental constraints of individual parcels.

Res. - Residential
Comm. - Commercial





CENTRAL SALINAS VALLEY PLANNING AREA

PLANNING AREA BOUNDARY

FIGURE EIR-1A

PROPOSED LAND USE PLAN CHANGES

NOTE: REFER TO TABLE EIR-2 FOR THE DESCRIPTION OF EACH CHANGE.

SOURCE: MONTEREY COUNTY PLANNING DEPARTMENT, 1987.



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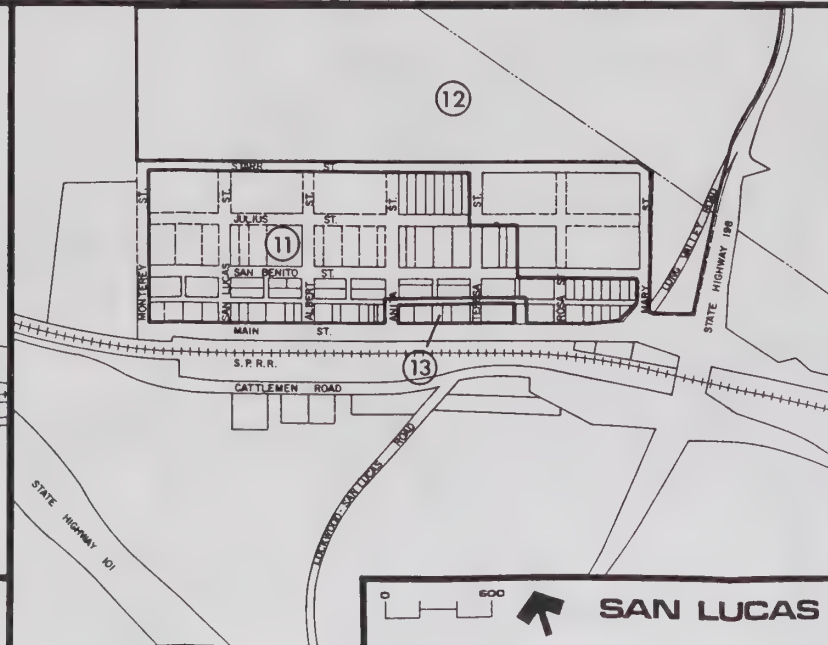
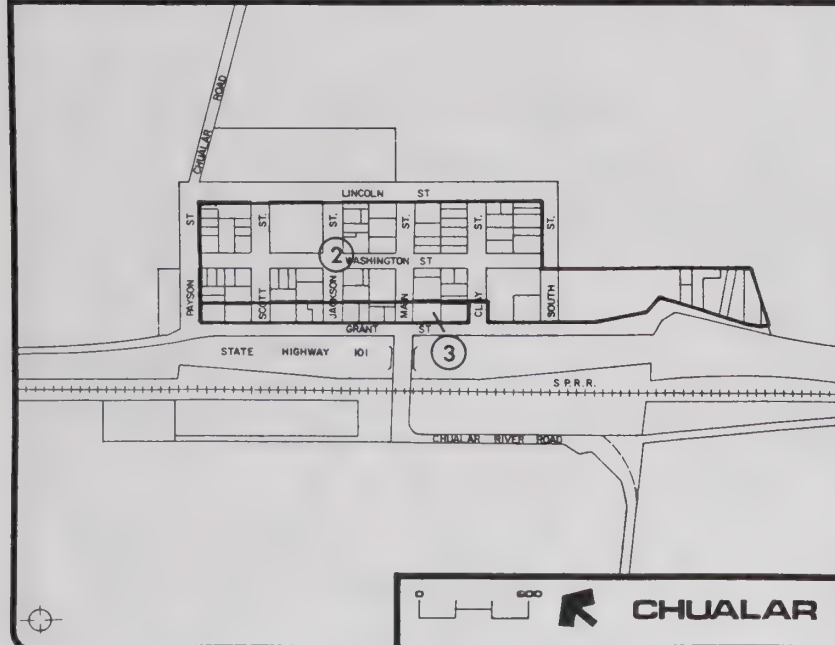
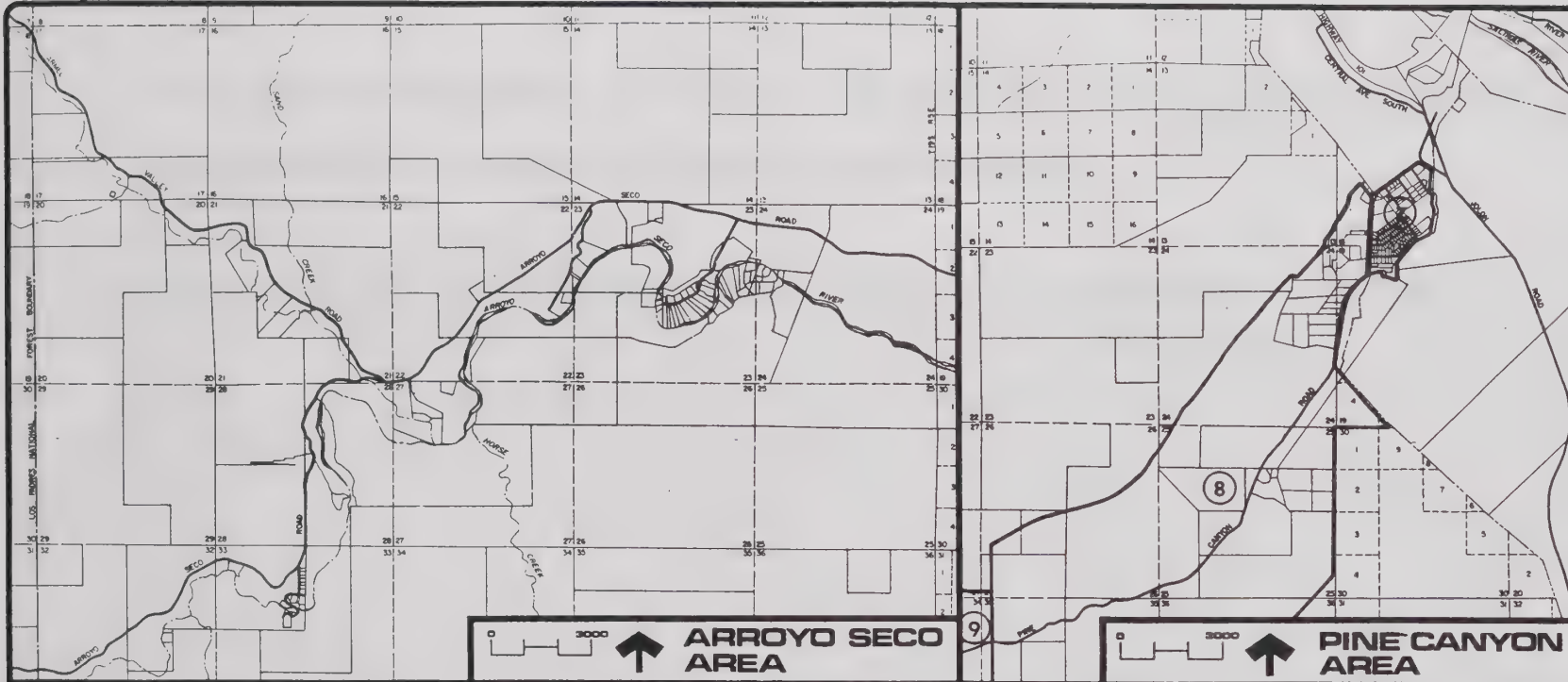


CENTRAL SALINAS VALLEY PLANNING AREA DETAILS

FIGURE EIR-18

PROPOSED LAND USE PLAN CHANGES

NOTE: REFER TO TABLE EIR-2 FOR
THE DESCRIPTION OF EACH
CHANGE.



SOURCE: MONTEREY COUNTY PLANNING
DEPARTMENT, 1987.



MAY 1983

Impacts and Mitigation Measures

Policy 6.1.3

Housing

Environmental Setting:

The four groundwater sub-basins that underlie the Salinas Valley are all being overdrafted as much as 58,100 acre-feet per year (see Area Plan p. 9).

Impacts:

Delaying or preventing development in areas where water supplies are overdrafted or contaminated could indirectly increase housing costs by reducing the land available for development. Requiring development to provide a new source of water could directly increase housing costs.

Mitigation Measures:

1. General Plan Objectives 6.1 and 6.2 and Policy 6.2.1 state that the County shall eliminate long-term groundwater overdrafting as soon as practicably possible and explore and implement measures to supply additional water to critically deficient areas by pursuing the development of suitable water supplies in keeping with broad conservation goals.

2. Pursuant to Policy 6.1.2, water conservation measures shall be encouraged.

3. Overdrafting and water contamination can be lessened by observing Area Plan 5.1.2.1 and 14.3.1 which require that development be designed to maintain groundwater recharge capabilities on site and encourage better management of agricultural chemicals and wastes respectively.

4. The County's Growth Management Policy, Inclusionary Housing Ordinance, and Housing Element contain strategies and policies which seek to facilitate the construction of housing in an environmentally and socially acceptable manner.

Policy 28.1.1.1

Hydrology

Environmental Setting:

Paraiso Hot Springs is located at the mouth of a canyon which drains a portion of the eastern slopes of the Sierra de Salinas Mountains. Several different soil groups occur at the site. Soil permeability varies from good to poor. An intermittent water course follows the east-west axis of the property, and is used at the bottom of the property to drain surface and spring waters.

Impacts:

Further development of the site may disrupt natural and existing drainage patterns and increase or concentrate runoff resulting in soil erosion on or off site. Erosion problems will be most severe during the construction phase of development.

Mitigation Measures:

1. Central Salinas Valley Area Plan Policies 5.1.2.1 and 16.2.1.1 will serve to lessen impact of additional development on the area's hydrology.

2. The County Erosion Control Ordinance will regulate grading and development to control erosion.

3. Landscaping can be used to control runoff and promote percolation.

Vegetation and Wildlife

Environmental Setting:

The Paraiso Springs Area is predominantly vegetated foothill oak woodland, chaparral, and grassland. No rare or endangered species have been observed at the site. Much of the natural vegetation has already been replaced with non-native species. A riparian corridor exists below the site along the watercourse that drains the runoff from rains and the baths. Many species of mammals, birds, and reptiles, and amphibians inhabit the area.

Impacts:

Alteration of the existing watercourse would adversely affect the riparian habitat. Loss of vegetation may result in the destruction of habitat used by native and migratory birds, mammals, and amphibians for foraging, nesting and shelter. Some animals will migrate from the site to find new habitats which will result in the deaths of young, old, and weaker animals due to increased competition for new territory, food shelter, and nesting areas.

The increased number of visitors and vehicles parking on-site will result in oils and contaminants draining from parking areas into the riparian corridor polluting water and damaging vegetation used by animals for food, shelter, and nesting sites.

There has been recent concern over the lack of regeneration for certain species of oaks, especially Blue oaks. Oak seeds and seedlings suffer significant mortality from rodents, deer, and cattle displaced by urbanization and development. Further development of the Hot Springs may exacerbate this problem.

Mitigation Measures:

1. Policy 28.1.1.1 (CSV) requires a comprehensive development plan for expansion of use at Paraiso. Comprehensive review of the project should allow for the mitigation of a specific projects significant impacts through conditions of the use permit. Further development of the site should preserve the existing drainage pattern and preserve the riparian corridor below the site.

2. Pursuant to General Plan Policy 7.1.2, the County should require the dedication of a permanent conservation easement for the protection of the riparian habitat at Paraiso.

3. General Plan Policy 9.2.1 requires that land use practices which could result in siltation and pollution of inland waters shall be carefully managed in order to assure a clean and productive habitat.

4. Pursuant to General Plan Policy 21.2.3, the County shall require all new and existing development to meet federal, state, and County water quality regulations.

5. Require that any oaks (particularly Blue and Valley oaks) removed during construction be replaced with young trees protected from predators.

Energy Conservation

Impacts:

Expansion of the resort and new commercial uses will involve an increase in energy from the following: an increased demand for domestic hot water; more space heating; more lighting; water bottling processes; and additional use of equipment and appliances.

Mitigation Measures:

1. The location of the site is favorable to the use of active and passive solar energy systems for domestic hot water and space heating.

2. New structures should be sited and oriented to utilize available solar insolation.

3. Utilize design and construction techniques to optimize the use of solar energy and encourage conservation of energy resources. Examples include:

- a) Thermopane windows
- b) Maximize glazing on the southern exposure of buildings, minimize glazing on the northern exposure
- c) Solar domestic hot water heating systems
- d) Weatherstrip around doors, windows, heating ducts and hot water plumbing.

Visual Impacts

Environmental Setting:

Paraiso Hot Springs is located at the western terminus of Paraiso Springs Road on the eastern slope of the Sierra de Salinas foothills about seven and a half miles north-northwest of the City of Greenfield. The site consists of about 240 acres nestled in the mouth of a canyon extending westward into the foothills. The surrounding land is designated as farmlands and rural grazing and is currently used for agriculture and vineyards where slope allows, and grazing and watershed in the steeper areas. Several residences are located below (east of) the resort on Paraiso Springs Road, however topography and vegetation screens the resort from these residences. The site is only visible on the approach from Paraiso Springs Road above the residences, where it can be identified by several tall palm trees. Existing structures include numerous small cottages, several mobile homes and turn-of-the-century Victorian houses (some of which are two story), a lodge, pool house, conference room, pump and tool sheds, and bath houses. All of these structures are essentially small, "human scale" buildings and are not visible until one arrives on site.

Impacts:

The scale of new development will determine the extent of its visual impacts, however it is likely that expansion will involve some adverse visual impacts. New lighting may become a visual nuisance to the homes below the resort on Paraiso Springs Road.

Mitigation Measures:

1. The geographic isolation and topographic setting will do much to reduce the visual impacts of new structures and intensified use of the site.

2. The lighting system for the resort should be designed to minimize light and glare upon nearby residents.

Air Quality

Impacts:

Expansion of the resort is expected to result in more visitor use requiring more vehicle trips to and from the site. An increase in vehicle trips will degrade air quality by increasing dust and vehicle emissions. Expansion of the resort has the potential to increase air pollution, including smoke from new fireplaces and equipment exhausts.

Dust and equipment exhausts will degrade air quality during construction.

Mitigation Measures:

1. Require catalytic converters on new fireplaces and woodburning stoves. Wood burning devices should meet state emission standards.

2. Reduce the number of individual vehicle trips to and from the resort by using a shuttle bus to transport visitors to and from a central parking location in one of the valley cities.

Water Quality

Environmental Setting:

Water supplies are currently drawn from springs and wells existing on site. Water quality is excellent. Expansion of the use at Paraiso will result in an increased demand for potable water. The extent of the increase in demand will depend on the scale of new development.

The site is presently served by four individual septic systems. The Soil Conservation Service Soil Survey of Monterey County indicates that much of the soil near Paraiso poses severe constraints to septic disposal systems. There is however, one area of the site where soils are favorable to septic disposal systems.

Impacts:

An increase in the use of the site, along with an increase in water consumption, will result in an increase on the amount of wastewater generated. Improper disposal or treatment of wastewater may contaminate groundwater in the area or pollute the riparian corridor below the resort.

Runoff from the site currently drains into a riparian corridor below the site (see discussion of impacts and mitigation measures under hydrology and vegetation).

Mitigation Measures:

1. The additional wastewater generated by an expansion of the resort will require treatment by a method approved by the County Environmental Health Department.

2. Should the area where soils are favorable to septic disposal systems not be sufficient to treat all wastewater generated by an expansion of uses at Paraiso, package wastewater treatment facilities should be studied as an alternative to septic systems.

Noise

Impacts:

Intensification of visitor serving and new commercial uses will likely result in increased noise both on- and off-site. The increased visitor vehicle trips will create more frequent vehicle noise impacting residents along Paraiso

Springs Road. Vehicle traffic within 50 feet of a residence exceeds the normally acceptable limits for low density residential areas. (Typical noise levels for light auto traffic at 50 feet is 60 dBA). Delivery vehicles may exceed this amount.

Mitigation Measures:

1. County General Plan Policies 22.2.1-6 and 22.3.1-2 dictate the standards and practices to be used in evaluating a specific project proposal.

2. Shuttling visitors from a central parking area near on of the valley cities will reduce individual trips and corresponding noise.

Transportation

Environmental Setting:

Paraiso Springs Road is a two lane county road which terminates at Paraiso Hot Springs. No level of service measures are available for Paraiso Springs Road. Average Annual Daily Traffic for Foothill and Fort Romie Roads which intersect Paraiso Springs Road have been measured at 100 AADT and 550 AADT respectively.

Impacts:

Intensified use of the resort will increase vehicle use of Paraiso Springs Road and its feeder roads. The extent of the increased use and corresponding increase in traffic will depend on the specific project. Slow moving delivery vehicles may also impede traffic.

Mitigation Measures:

1. General Plan Policy 37.2.1 requires that an adequate level of service be maintained on Paraiso Springs Road.

2. Pursuant to General Plan Policy 38.1.5, adequate traffic capacity shall be a criterion for development consideration.

3. General Plan Policies 39.3.1, 39.3.2, and 39.4.1 require the County to monitor traffic flow and improve congestion with priority given to arterials that carry agricultural goods.

Public Services and Facilities

(Fire Protection)

Environmental Setting:

Paraiso Springs is located within an area subject to very high fire hazards. It is within the service area of the Mission Soledad Rural Fire Protection District. The Resort is also served by on-site fire fighting equipment.

Impacts:
New development will add to the risk of fires and the need for emergency services.

Mitigation Measures:

1. General Plan Policy 17.3.3 requires that all new development not located within 15 minutes response time from a fire station provide on-site fire protection systems or development may only take place at the lowest density allowed for the parcel by the General Plan. New development located within 15 minutes response time from a fire station shall be required to annex to the appropriate fire district (General Plan Policy 17.3.6).

2. Pursuant to General Plan Policy 17.3.4, all new development in the Canyon shall be contingent upon the provision of water supplies for fire suppression. Water systems constructed shall be designed to the standards shown in Table 2 on page 62 of the County General Plan (General Plan Policy 17.3.5).

3. All roadways shall conform to the standards established in the County General Plan.

4. Every building, structure, and/or development shall be constructed to meet, at a minimum, the requirements specified in the Uniform Building Code (General Plan Policy 17.4.2).

5. Pursuant to General Plan Policy 17.4.7, Paraiso Hot Springs shall obtain a statement from the fire department that adequate structural fire protection is available.

6. Fuel modification zones shall be provided pursuant to General Plan Policies 17.4.12 and 17.5.1.

7. Area Plan Policy 46.1.2 requires that emergency access problems be identified and addressed before development is allowed to occur.

(Police Protection)

Environmental Setting:

Paraiso Springs is located in County Sheriffs Patrol Beat 10. This Beat covers a large area and is sparsely populated, and therefore has relatively long response times.

Impacts:

An increased number of visitors at the resort may increase the likelihood of crime.

Mitigation Measures:

1. Involve the County Sheriffs Department in the comprehensive project review and solicit suggestions on design features that can be incorporated into the project to prevent crime.

(Solid Wastes)

Environmental Setting:

The Paraiso area is served by the Rural Garbage and Disposal Service Company which dumps at the Johnson Canyon Solid Waste Landfill.

Impacts:

Expanding the uses at Paraiso will result in the generation of more solid wastes which will add to the volume of solid wastes disposed of at the Johnson Canyon Facility.

Mitigation Measures:

1. The County should encourage recycling of solid wastes.

2. Should a program of solid waste recycling be instituted in the County Paraiso Springs should separate solid wastes on-site to facilitate recycling.

Archaeological/Historical Resources

Environmental Setting:

Paraiso Hot springs are located in an area of high archaeological sensitivity. An archaeological study was conducted by Archaeological Consulting for the Paraiso Hot Springs site in 1984. The study concluded that the area does contain potentially significant prehistoric and historic resources.

Impacts:

Construction and development activities could result in the destruction or degradation of historic cultural resources.

Mitigation Measures:

1. If the project exhibits any possibility of impacting the integrity, an Archaeological Resources Mitigation Plan should be required prior to issuing permits. The results of the mitigation activities should be compiled into a final report prior to the issuance of building or grading permits.

2. Pursuant to General Plan Policy 12.1.6, an archaeological easement should be dedicated for those areas exhibiting archaeological resources to insure that those site are preserved.

3. Combine an HR zoning designation along with the planned commercial - commercial recreational zoning intended for the site. Regulations under the HR designation provide for protection of historic resources.

POLICY 30.0.7.1

Geology/Soils

Impacts :

Changing the use of certain parcels from farmlands to residential, including small residential subdivisions, will result in increased runoff. The specific characteristics of the site will determine if there will be significant erosion caused by runoff.

Mitigation Measures:

Erosion control plans shall be required pursuant to the County Erosion Control Ordinance.

Energy

Impacts:

Isolated developments frequently result in longer resident commutes to work and shopping.

Mitigation Measures: None

Visual Impacts

Impacts:

The rural agrarian character of the Central Salinas Valley is due in part to the large areas of open fields, sparse development, and unobstructed views from roadways. Scattered development will degrade this experience.

Mitigation Measures:

None

Air Quality

Impacts:

Longer vehicle trips required for residents in scattered farmland areas will result in more vehicle emissions.

Mitigation Measures:

1. General Plan Policy 37.4.1 encourages overall land use patterns which reduce the need to travel.

2. General Plan Policy 38.1.1 states that the County shall support measures for reducing air pollution from transportation sources.

Water Supply and Quality

Environmental Setting:

Water supplies in the Salinas Valley are derived from groundwater. All four groundwater sub-basins that underlie the Salinas Valley are currently being overdrafted by as

much as 58,100 acre-feet per year. This overdraft is resulting in seawater intrusion in the Pressure Area aquifer. Isolated residential subdivisions must rely on on-site wastewater disposal systems. Many wells in the Salinas Valley already exhibit nitrate contamination.

Impacts:

Additional residential uses will incrementally increase groundwater overdrafts and exacerbate the seawater intrusion problems of the Pressure Area aquifer. Expansion of septic uses in the Salinas Valley may exacerbate the problem of nitrate contamination.

Mitigation Measures:

1. Promote water conservation and install low flow water fixtures in all new residential units.

2. Reduce irrigation demand in residential areas by requiring that any landscaping be done using drought tolerant, native, or low-water use plants.

3. All new septic systems will require permit approval by the County Environmental Health Department.

4. Development in areas where groundwater exhibits high concentrations of nitrates should utilize alternative wastewater treatment techniques.

Transportation

Impacts:

Locating residences or small subdivisions in isolated areas of the Planning Area will result in greater use of rural county roads. Increased suburban traffic may compete with farm vehicles for use of the rural agricultural roads. Increased vehicle use of the roads will result in more frequent road maintenance.

Mitigation Measures:

1. Deploy proper signage warning drivers to reduce speed and watch for slow-moving farm equipment.

Public Services

(Police and Fire Protection)

Impacts:

Police and fire protection services will require relatively long response times to reach isolated developments.

New development will add to the risk of fires and the need for emergency services.

Mitigation Measures:

1. New development should be designed so as to minimize fire hazards.
2. Development in high and very high fire hazard areas should be clustered and/or separated from wildland by fuel breaks in order to concentrate development in fire manageable areas.
3. Area Plan Policy 17.4.13. shall be used to identify areas of high and very high fire hazard.

(Schools)

Impacts:

New residential uses will result in more students for Planning Area schools. Additional students will exacerbate the overcrowding of Planning Area schools expected by the year 1990.

Isolated, low density development may also require school districts to expand their busing routes. Funding for student transportation and facilities is uncertain.

Mitigation Measures:

1. New facilities must be planned for, funded, and built to provide an adequate level of education to Planning Area children.
2. As specified in General Plan Policy 47.1.1, the County Planning Department shall provide its best estimate of increased enrollments generated by new housing developments to the affected school districts.
3. As specified in General Plan Policy 47.1.2, the County shall assist school districts in reserving sites for future schools in or near areas where development is to occur.
4. General Plan Policy 47.1.3 states that the County Office of Education shall encourage coordination between school districts experiencing increasing and declining enrollments to provide for the reallocation of surplus facilities in a cost effective manner.

5. Affected school districts should impose developer fees on new residential construction to finance the construction and rehabilitation of temporary and permanent facilities (Govt. Code Sec. 53081).

(Solid Waste)

Impacts:

Wastes generated by residential uses replacing agricultural uses will add to the overall volume of solid waste and shorten the life-span of area land-fills.

Mitigation Measures:

1. Public education programs promoting recycling can minimize the volume of solid waste produced and maximize the life-span of area land-fills.

Agricultural Preservation

Impacts:

Policy 30.0.7.1 (CSV) would allow additional residential uses, including small subdivisions, on relatively small isolated parcels in agricultural areas. The incremental effect of allowing intensified residential uses will be a loss of farmland that would have otherwise been remained in production under the farmlands land use designation.

Small residential developments and subdivisions may be incompatible with nearby farming operations. Noise, dust, and herbicide and pesticide spraying associated with agricultural operations may be considered a nuisance by affected homeowners, resulting in nuisance lawsuits which may disrupt agricultural operations.

Mitigation Measures:

1. General Plan Policies 4.1.3 and 27.3.3 require the protection of agricultural lands from incompatible land uses through appropriate site design and the dedication of permanent buffer zones.
2. Require agricultural viability reports before allowing intensified residential development on agricultural land.
3. Encourage owners of isolated or unprofitable parcels to lease or sell these parcels to adjacent agricultural operations which may be able to farm these parcels profitably.
4. Adopt a "right-to-farm" ordinance which would require that a "hold harmless" agreement, covenant, or deed restriction be written into the deeds or contracts of sale of residential property which would limit the circumstances under which an agricultural operation may be deemed to constitute a nuisance.

POLICY 39.3.3

Impacts:

Waiting at stop sign and accelerating from a stop will consume more energy than is used at unsigned intersections.

Waiting and accelerating at stop signs will increase vehicle emissions and decrease air quality.

vehicles idling and accelerating from a stop will increase noise in San Lucas neighborhoods.

Mitigation Measures:

1. County Public Works should determine the locations where stop signs are most needed.

POLICY 40.1.2

Impacts:

Designation of Highways 25, and 145 and Arroyo Seco and Bitterwater Roads as Scenic Highways may attract more people to drive these roads. More vehicles traveling these roads will consume more fuel and energy. The increase in visitors and vehicle trips will result in increased vehicle emissions and decreased air quality.

The proposed scenic routes are two-lane rural county roads. A substantial increase in traffic may reduce the level of service on these roads. Highway 146 narrows down to one lane in several locations. Maintaining these highways may require upgrading the roads and more frequent maintenance.

Heavy use of scenic routes may result in litter and/or damage to roadside foliage.

Mitigation Measures:

1. In accordance with General Plan Policy 39.3.1, the County should monitor traffic on these roads and continue its efforts to improve traffic congestion.
2. Sufficient right-of-way should be acquired to maintain an adequate level of service and to maintain landscaping that blends into and complements the scenic corridor.

LAND USE MAP CHANGES

Land Use Change #1

Description:

Map Change #1 will result in the conversion of approximately 67 acres of land in six parcels designated as Farmlands to Rural Density Residential. This change in density would allow 13 residential units.

Geology/Soils

Impacts:

The parcels addressed in Land Use Change #1 are located in an area of high seismic hazards. Several of the parcels (216-021-04, 216-021-05, 167-042-09) occur on recent alluvium which may be subject to severe groundshaking or liquefaction in the event of an earthquake.

The Soil Survey of Monterey County prepared by the Soil Conservation Service indicates that most of the River Road sites exhibit moderate constraints to development. One site, on parcel 167-042-09, exhibited soils that were favorable to development. On the contrary, the portion of parcel 167-052-07 subject to this amendment had soils with high shrink swell potential and severe to moderate constraints to development. The Soil Survey also indicated that, with the exception of parcel 167-042-09, all sites referenced in Map Change #1 occur on soils that exhibit severe constraints to septic tank absorption fields.

Mitigation Measures:

1. As specified in General Plan Policy 15.1.4 and 15.1.8, a preliminary seismic hazard report addressing groundshaking and liquefaction shall be required before a development application is considered complete.
2. Pursuant to General Plan Policy 15.1.11, development permits should be conditioned according to the recommendations of the geologic and soils report.
3. Earthquake and liquefaction danger should be considered in all building and engineering designs. All structures and utility lines shall conform to the standards of the latest adopted Uniform Building Code.
4. The geologic and soils report required by General Plan Policy 15.1.11 should discuss the particular sites suitability for development and recommend design and engineering measures necessary to comply with the latest adopted Uniform Building Code.
5. Development should be subject to the applicant securing a permit for a septic system from County Environmental Health

Department. These permits shall be subject to the conditions of the Environmental Health Department.

Hydrology

Environmental Setting:

Portions of the subject parcels are located within or near the 100 year floodplain of the Salinas River and the area of inundation in the event of an upriver dam failure.

Impacts:

The development of new housing usually has some impact of the sites hydrology, particularly due to the grading necessary for the foundation. Impervious surfaces will increase runoff volumes on the subject parcels. This runoff, as well as construction activities may increase siltation in the river.

Mitigation Measures:

1. General Plan Policy 5.2.1 requires that owners of property adjacent to waterways or responsible agencies shall be encouraged to maintain healthy vegetation along the drainage course, or provide other suitable means of preventing bank erosion or siltation.

2. Pursuant to General Plan Policy 16.2.3, all new development requiring a discretionary permit shall be prohibited within 200 feet of the riverbank or within the floodplain, except as permitted by the Monterey County Floodplain Ordinance.

3. Central Salinas Valley Area Plan Policy 16.2.1.1 requires that site plans for new development show all natural drainages. The Policy also states that development shall not be allowed to disturb the natural banks and vegetation along these drainage courses, unless such disturbances are with approved flood or erosion control or water conservation measures.

4. Land uses in the floodplain should be restricted to such open space uses as agriculture or passive to low intensity recreation as stated in General Plan Policy 16.2.2.

Water Supply and Quality

Environmental Setting:

The subject parcels of Map Change #1 would draw water from the Pressure and Forebay sub-basins. Both sub-basins are currently being overdrafted (see Area Plan p. 10).

Residences along River Road are currently served by collective water systems or individual wells. Several of the wells near the City of Gonzales have exhibited nitrate

concentrations exceeding State health and safety standards, yet wells near the Salinas River generally exhibit acceptable water quality.

As discussed under the Hydrology/Soils heading above, the soils along this area of River Road exhibit severe constraints to septic systems, primarily due to slow percolation rates. Runoff from these sites could be contaminated with leachates from septic systems if the septic systems are not properly designed and constructed.

Impacts:

Assuming an average annual household water use of .411 acre feet per residence, Map Change #1 would result in an additional overdraft of 5.34 acre feet per year.

Additional septic systems along River Road increases potential of ground- or surface water contamination. Runoff from residential sites may also contain inorganic contaminants from parked vehicles.

Mitigation Measures:

1. New wells and septic systems will require permits from the County Environmental Health Department.

2. The site plans required by Area Plan Policy 16.2.1.1 (CSV) and the County Floodplain Ordinance should be reviewed with respect to drainage and runoff, and conditions should be stated to minimize the effects of potentially contaminated runoff.

3. Environmental review consistent with CEQA should occur where applicable.

Schools

Environmental Setting:

The parcels addressed in Map Change #1 are within the Gonzales Union Elementary and High School Districts. According to AMBAGs System Capacity Analysis both school districts exceeded capacity in 1985.

Impacts:

Land Use Change #1 will generate additional students and increase classroom occupancies. According to student generation factors used by the districts, new residences could generate 10 elementary students and 7 high school students.

Elementary Students - $13 \times .75 = 9.75$
High School Students - $13 \times .5 = 6.5$

Mitigation Measures:

1. Affected school districts should impose developer fees for the construction of school facilities pursuant to State Govt. Code Section 53081.

Land Use Change #2

Description:

Land Use Change #2 specifies a density of 6 units/acre in the High Density Residential area of Chualar. Most of Chualar is already built out, however a few small parcels as well as one large parcel south of South Street remain vacant. The 6 units/acre would allow an additional 26 units to be built.

Transportation

Environmental Setting:

Grant and South Streets will serve as the collector roads for new residences to be built on the large vacant parcel. Both are wide two lane roads. Level of service data is not currently available for these roads.

Impacts:

AMBAG estimates that about 126 vehicle trips per day could be generated by 26 high density residential units.

Mitigation Measures:

1. The County Public Works Department should monitor the primary streets in Chualar and determine the actual level of service. Improvements should be recommended where necessary.

Public Services

Schools -

Environmental Setting:

Chualar lies within the Chualar Union Elementary and Gonzales Union High School Districts. Enrollments at Chualar Union are currently well within the districts capacity. Enrollments at Gonzales Union High School are currently at capacity.

Impacts:

The Chualar Union School District estimates that as many as 65 students (2.5 per household) could be added to the district (Pers.Comm., Tom Guajardo, 12/11/1986). Gonzales High School District Superintendent Randall Olsen estimates that approximately .8 high school students could be generated per household, which would yield about 21 additional high school students.

Mitigation Measures:

1. See Mitigation Measures, School Impacts, Land Use Change #1

Agricultural Preservation

Environmental Setting:

The largest vacant parcel of land in the High Density Residential designation in Chualar is located adjacent to and south of South Street and east of Main Street. To the immediate south of this parcel, also fronting Main Street are several other residences. All of these parcels are contiguous with a parcel of prime farmland currently in use for row crop production.

Impacts:

High density residential development of this parcel will increase the likelihood that agricultural operations on the adjacent parcel will become a nuisance to the residential use. This may result in the loss of some agricultural land as its use is restricted to reduce the nuisance to the adjacent residential uses.

Mitigation Measures:

1. The County should consider a "right-to-farm" ordinance which would establish provisions to limit the circumstances under which agricultural operations may be deemed to constitute a nuisance.

2. Pursuant to General Plan Policy 30.0.2, the County shall require the owner or developer to dedicate a permanent, well defined buffer of land between the residences and the adjacent agricultural use.

3. Should subdivision of the residential parcel occur, a permanent buffer should be dedicated to the County as open space pursuant to General Plan Policies 27.3.2, 27.3.3, and 30.0.2.

Land Use Change #3

Description:

Land Use Change #3 designates approximately 2.8 acres of Commercial land use along Grant Street, from Payson to Clay Streets in Chualar. The Land Use Change encompasses 40 existing lots of record under 18 different ownerships. Existing use of the area affected is commercial and high density residential. A maximum of 60 commercial building sites will result (assuming a 2,000 sq. ft. minimum building site). The actual number of building sites will depend upon specific projects.

Visual Impacts

Environmental Setting:

Grant Street is the frontage road to Highway 101 in Chualar and is clearly visible from the Highway. From Highway 101 the landscape of Grant Street is dominated by relatively small, in some cases deteriorated, commercial facades, small homes, vacant lots, apartment houses, and parked vehicles.

Impacts:

The change in land use would essentially result in the communities highway frontage being almost entirely commercial. Additional commercial uses may result in additional vehicles parking along main street. Lighting for additional commercial uses along Grant Street may create glare for adjacent residences.

Mitigation Measures:

1. New commercial uses shall be required to provide adequate off-street parking.
2. Lighting fixtures for new commercial uses shall be of a design which minimizes light and glare to adjacent residences.

Transportation

Environmental Setting:

Grant Street is the frontage road to Highway 101. Grant Street is also the commercial strip for the Community. No Level of Service traffic data is currently available for Grant Street. Highway exits for Chualar River Road and Main Street provide access to Grant Street.

Impacts:

Additional traffic created by intensified commercial uses along Grant Street may decrease the Level of Service on the highway exits and Grant Street.

Mitigation Measures:

See Mitigation Measure #1 under Transportation, Land Use Change #2.

Public Services

Water Supply and Sewage Treatment

Environmental Setting:

Water is supplied to the Chualar community by the Chualar County Water District. Sewage treatment is provided by the Chualar County Sanitation District. Both agencies are currently operating well below capacity. The Pressure Area sub-basin from which the water is drawn, however, is currently in a state of overdraft.

Impacts:

Commercial water consumption varies according to specific uses. One general consumption factor is 400 gallons per day per toilet room. Assuming the maximum of 60 possible commercial units, each with a toilet room, the land use designation could result in a demand of 26.88 acre-feet of water per year (along with a corresponding amount of wastewater generated). With one toilet room per existing lot of record, the water consumption and wastewater generated would be about 18 acre-feet per year. The increased water demand could result in increased overdraft of groundwater resources.

Mitigation Measures:

1. The County shall work to eliminate the overdraft to groundwater resources and develop supplemental water supplies pursuant to General Plan Objectives 6.1 and 6.2 and General Plan Policy 6.2.1. General Plan Policy 6.1.2 encourages water conservation measures. Area Plan Policy 6.1.3 (CSV) requires that that new development be approved only in areas with adequate water supplies.

Police Protection

Environmental Setting:

Chualar lies within County Sheriff's Patrol Beat V. Patrol Beat V extends from Potter Road in the north to Camphora Road in the south. The eastern boundary is the San Benito County line while the western boundary extends into the foothills of the Sierra de Salinas, narrowing to follow River Road west of Gonzales. There is one Sheriff on duty at all times. The expansive patrol area results in relatively long response times.

Impacts:

Additional commercial uses will increase the probability of crime.

Mitigation Measures:

1. Individual project plans should be reviewed by the County Sheriffs Department for recommendations regarding crime prevention.

LAND USE CHANGE #4

Description:

Land Use Change #4 designates approximately 455 acres in Chualar Canyon located 1,000 feet on either side of Chualar Canyon Road from parcel 145-101-07 to the end of the County Road as Rural Grazing. This land use designation will allow a maximum of 45 residential units in Chualar Canyon. Four residential units currently exist in Chualar Canyon.

Geology/Soils

Environmental Setting:

Chualar Canyon is underlain by recent alluvium which is rated as a high hazard area with respect to earthquake damage. The potentially active Gabilan Creek Fault passes through the Land Use Change Area. Soil types in the area vary depending upon location. Soil types present include:

Chualar loam, 2 to 5 percent slopes
Gorgonio sandy loam, 0 to 5 percent slopes
Hanford gravelly sandy loam, 0 to 5 percent slopes
Junipero sandy loam, 30 to 75 percent slopes
Macy clay loam, 30 to 75 percent slopes
Placencia sandy loam, 9 to 15 percent slopes.

Steep slopes rising from the Road can be found in several locations on both sides of the Road.

Impacts:

Structures built within the Land Use Change Area may be subject to severe groundshaking or liquefaction.

The constraints soils present to development range from slight to severe. Generally, the soils along both sides of the Road show slight constraints to construction and septic systems. The exception is the area south and west of the Road where slope is severe and the depth to rock is shallow. Slopes in excess of 30% occur in several other locations as well. Steep slopes may limit the number of dwelling units possible in the Land Use Change Area. Generally, as distance increases from the Road soil constraints also increase.

Mitigation Measures:

1. As specified in General Plan Policy 15.1.4 and 15.1.8, a preliminary seismic hazard report addressing groundshaking and liquefaction shall be required before a development application is considered complete.

2. As per General Plan Policy 15.1.11, development permits should be conditioned according to the recommendations of the geologic and soils report.

3. Earthquake and liquefaction danger should be considered in all building and engineering designs. All structures and utility lines shall conform to the standards of the latest adopted Uniform Building Code (General Plan Policy 15.1.10).

4. Critical structures shall be prohibited within 1/8 mile of the fault zone.

5. Pursuant to General Plan Policies 3.1.1 and 3.2.2, and the County Erosion Control Ordinance, erosion control shall be enforced for all private and public construction

and grading projects with lands having prevailing slopes above 30% requiring adequate special erosion control and construction techniques.

6. Consistent with Area Plan Policy 3.2.4 (CSV), development shall be prohibited on portions of parcels with a cross-slope of 30 percent or greater.

Hydrology

Environmental Setting:

Chualar Creek is the primary drainage for a watershed that extends into San Benito County. The Creek parallels Chualar Canyon Road along the bottom the Canyon. The Road bridges the Creek in several locations. Although Chualar Creek is intermittent (as are the eight other drainage creeks that feed it), much of the land use change area has been designated as a 100-year floodway on the flood insurance rate maps. Chualar Creek flows during the rainy seasons, often changing its course slightly. Sheetwater occurs in areas with pronounced slopes, revealing the shallow depth to rock.

Groundwater in the Canyon is spotty and supplies are unpredictable. Groundwater occurs in fractured granite below the alluvium.

Impacts:

Grading for new construction may disrupt the natural drainage course. Improperly handled runoff may also cause erosion of the natural drainage course and increase siltation in the Creek, causing it to change its course to an area where it might cause flooding or damage.

High groundwater in some areas of the land use change area increases the likelihood of septic system leachate contaminating surface or groundwater resources.

Mitigation Measures:

1. Area Plan Policy 16.2.1.1 (CSV) will restrict disturbance of natural drainage courses and their banks and vegetation unless such disturbances are with approved flood or erosion control or water conservation measures.

2. Pursuant to General Plan Policy 16.2.3, all new development requiring a discretionary permit shall be prohibited within the floodplain, except as permitted by the Monterey County Floodplain Ordinance. Accordingly, the Monterey County Flood Control and Water Conservation District shall review all development permits for projects located within the floodplain.

3. General Plan Policy 5.2.1 requires owners of property adjacent to waterways or responsible agencies to maintain vegetation or provide other suitable means of preventing bank erosion or siltation.

4. Use of septic systems shall require the approval of and be subject to the conditions of the County Department of Environmental Health. Pursuant to General Plan Policy 21.3.3, no development shall be permitted without proof that an adequate waste disposal system can be developed.

5. Due to the isolated nature of groundwater in Chualar Canyon and according to General Plan Policies 21.1.7 and 21.1.9, the County shall monitor surface and groundwater quality in Chualar Canyon and support investigations and remedies pollution problems.

Vegetation/Wildlife

Environmental Setting:

The vegetation along much of the lower foothills on the east side of the Salinas Valley has been altered to provide grazing land for cattle. Most of the foothills and slopes of the Gabilan Range, however, remain vegetated by native broadleaf evergreen plant communities, primarily interior oak woodlands. Some riparian habitats can also be found along the intermittent creeks. California Sycamores occur in large numbers along the bottom of the Canyon. The land use change area is also vegetated by grasses common to oak woodlands. Some riparian vegetation also occurs. All riparian habitats in the County are considered to be Areas of Special Biological Importance (ASBIs) by the State Department of Fish and Game.

Many species of oak throughout the State are currently the topic of conservation concern because of a lack of regeneration of oak seedlings. The high mortality of oak seedlings is believed to be due to predation from rodents, deer, and cattle.

Impacts:

Development and human activities, such as trail bike riding or even walking may disrupt riparian habitats, resulting in a loss of habitat for used by native and migratory birds, mammals, and amphibians for foraging, shelter, and nesting sites. Domestic animals such as dogs and cats will disturb native wildlife causing native species to abandon portions of their ranges. Animals migrating to find new habitats will result in deaths of young, old and weaker animals due to increased competition for new territory, food, shelter, and nesting areas.

Increased human habitation of the area may result in loss of oak trees during the clearing of building sites or for use as firewood. A decline in predators which require extensive

ranges may result in an increase in the population of rodents or deer which could exacerbate the lack of regeneration of oak seedlings.

Mitigation Measures:

1. Consistent with Area Plan Policy 11.1.6, the County should identify environmentally sensitive areas within the Central Salinas Valley. Areas expected to receive significant development pressure in the near future should be a priority for these studies.

2. Environmental review consistent with CEQA shall occur where applicable.

3. General Plan Policy 7.1.2 encourages the protection of limited or threatened plant communities through dedications of permanent conservation easements and other appropriate means.

Visual Impacts

Environmental Setting:

Chualar Canyon is located in an area that has been designated as Sensitive on the Area Plan Scenic Highways and Visual Sensitivity Map. The public viewing area is the narrow country road that runs along the bottom of the Canyon. The dominant visual features are the steep foothills that comprise the sides of the narrow canyon, the large populations of oak and sycamore trees, and the creek that meanders along the bottom of the canyon with its trail of riparian vegetation. Several old farmhouses, horse stables, and fences punctuate the landscape and create a rural atmosphere.

Impacts:

Scenic Quality of this portion of the Canyon may be depreciated by the intrusion of inharmonious or discordant sights. The existing rural character may be lost to a suburban landscape. The impact of this land use change will depend upon the actual density of development.

Mitigation Measures:

1. Residences and structures should be sited and designed to minimize their visual impact. Area Plan Policy 26.1.6.1 (CSV) requires that landscaping, building design, and siting of developments in the sensitive and highly sensitive areas of the Visual Sensitive Map shall be subject to design review to insure the visual integrity of the area.

2. General Plan Policy 7.2.1 states that landowners and developers shall be encouraged to preserve the integrity of existing terrain and natural vegetation in visually sensitive areas such as hillsides and ridges.

3. General Plan Policy 26.1.9 prohibits ridgeline development unless a special permit with findings that the development will not have adverse visual impacts is granted. The Policy also states that new subdivisions shall avoid lot configurations which create building sites that would result in ridgeline development.

4. Pursuant to General Plan Policy 26.1.10, the County shall prohibit development on slopes greater than 30%. Scenic easements should be required on the areas with slopes exceeding 30%. Voluntary scenic or conservation easements shall also be encouraged to preserve the areas rural and open space character (General Plan Policy 26.1.13).

Air Quality

Impacts:

Development in the Canyon will result in localized degradation of air quality, primarily due to vehicle emissions and smoke from fireplaces. AMBAG estimates home based emissions from the projected buildout in the Canyon will be:

Carbon Monoxide 13 tons/year
Hydrocarbons 1 tons/year

Dust and exhausts from heavy equipment will degrade localized air quality during construction.

Mitigation Measures:

1. Pursuant to General Plan Policy 20.1.2, the County shall encourage mass transit and alternatives to the automobile.

2. General Plan Policy 20.1.3 encourages maintaining vegetated and forested areas for their air purifying functions.

3. Pursuant to General Plan Policies 20.2.2, 20.2.3, and 20.2.5, the County shall support the air quality monitoring strategies, and enforcement programs of the Monterey Bay Unified Air Pollution Control District.

4. According to General Plan Policy 38.1.1, the County shall pursue reducing air pollution from transportation sources.

Water Supply and Quality

Environmental Setting:

Water in Chualar Canyon is derived from groundwater wells. Groundwater reserves in the Canyon are unknown due to the unpredictable location of wells in the area. Water supply is therefore uncertain. It is believed that groundwater occurs in fractures in the granite bedrock. Existing wells and vegetation indicate that groundwater is shallow. Water quality in existing wells is generally good.

Wastewater in the Canyon is disposed of on-site through septic systems.

Impacts:

New residential development will require approximately 17 acre feet of water per year (41 units X .411 ac.ft./yr.). The spotty occurrence of groundwater in the Canyon may make water supply to new parcels uncertain. Excessive pumping of relatively small aquifers occurring in fractured bedrock could result in the depletion of the aquifer.

Sheetwater and high groundwater increases the possibility of ground- or surfacewater contamination with septic system leachate.

Mitigation Measures:

1. Area Plan Policy 6.1.3 requires that new development shall be contingent upon the existence of adequate water supplies. Developers should, therefore, be required to demonstrate an adequate supply of water before their application is considered complete.

2. Area Plan Policy 5.1.2.1 requires that development shall be designed to maintain groundwater recharge capabilities on the property.

3. Hydrology and groundwater studies should be required as a part of the application process to implement mitigation measures 1 and 2.

4. Septic systems will require a permit from the County Department of Environmental Health. Design modifications will be required as necessary to ensure proper functioning of septic systems.

5. Pursuant to General Plan Policy 15.1.13, drainage plans shall be required which direct runoff and drainage away from unstable slopes.

6. Pursuant to General Plan Policies 21.1.7 and 21.1.9, the County will monitor surface and groundwater quality and support investigations of and remedies to pollution problems.

Transportation

Environmental Setting:

Chualar Canyon Road is the only public road in the Canyon. It is a narrow, one lane road with several bridges with sufficient width for only one vehicle. The Road is not a through-road and there is a turn-around where the County road terminates. Chualar Canyon Road has an average daily traffic volume of 950 vehicles per day with Level of Service (LOS) "B" from Old Stage Road to 3.3 miles easterly and LOS

"C" from 3.3 miles east of Old Stage Road to the end of Chualar Canyon Road.

Impacts:

AMBAG estimates that 41 additional residences in Chualar Canyon will yield 409 vehicle trips per day. The County Department of Public Works indicates that this increase will not decrease the Level of Service on Chualar Canyon Road, however the increase in the number of Policy 37.2.1 prohibits new development from exceeding an acceptable level of service (LOS C) for existing transportation facilities unless increases in capacity are provided for. Development that precludes the timely development of rights-of-way shall be prohibited (General Plan Policy 39.1.3). Individual subdivisions to establish a baseline that will be used to evaluate the effect of the additional traffic.

2. General Plan Policy 37.2.1 prohibits new development from exceeding an acceptable level of service (LOS C) for existing transportation facilities unless increases in capacity are provided for. Development that precludes the timely development of rights-of-way shall be prohibited (General Plan Policy 39.1.3). Individual subdivisions will be reviewed and may be required to make required to make roadway improvements.

3. See Mitigation Measure #1 under Air Quality above.

Public Services and Facilities

Fire Protection -

Setting:

Chualar Canyon is located in an area of Very High Fire Hazards. The Canyon is served by the Salinas Rural Fire Protection District, which employs 20 full-time firefighters and directs 30 volunteers. As discussed above, water supplies in Chualar Canyon are uncertain. No water supplies or distribution systems for fire fighting currently exist in the Canyon.

Impacts:

Additional residential development in the Canyon will increase the possibility of an accidental fire. New development will also place a greater demand on the existing level of service.

Mitigation Measures:

1. General Plan Policy 17.3.3 requires that all new development not located within 15 minutes response time from a fire station provide on-site fire protection systems or development may only take place at the lowest density allowed for the parcel by the General Plan.

2. Pursuant to General Plan Policy 17.3.4, all new

development in the Canyon shall be contingent upon the provision of water supplies for fire suppression. Water systems constructed shall be designed to the standards shown in Table 2 on page 62 of the County General Plan (General Plan Policy 17.3.5).

3. All new development located within 15 minutes response time from a fire station shall be required to annex to the appropriate fire district (General Plan Policy 17.3.6).

4. All roadways shall conform to the standards established in the County General Plan.

5. Every building, structure, and/or development shall be constructed to meet, at a minimum, the requirements specified in the Uniform Building Code (General Plan Policy 17.4.2).

6. Pursuant to General Plan Policy 17.4.4, house numbers shall be clearly posted on the property so as to be clearly visible from the road.

7. Pursuant to General Plan Policy 17.4.7, all subdivisions and multi-unit residential complexes shall obtain a statement from the fire department that adequate structural fire protection is available.

8. Fuel modification zones shall be provided pursuant to General Plan Policies 17.4.12 and 17.5.1.

9. Area Plan Policy 46.1.2 requires that emergency access problems be identified and addressed before development is allowed to occur.

Schools-

Environmental Setting:

Chualar Canyon lies within the Chualar Union Elementary and Gonzales Union High School Districts. Enrollments at Chualar Union are currently well within the districts capacity. Enrollments at Gonzales Union High School are currently at capacity.

Impacts:

The Chualar Union School District estimates that as many as 103 students (2.5 per household) could be added to the district (Pers.Comm., Tom Guajardo, 12/11/1986). Gonzales High School District Superintendent Randall Olsen estimates that approximately .8 high school students could be generated per household, which would yield about 33 additional high school students. Approximately 10% of the students generated should be expected to require special education.

Mitigation Measures:

see Mitigation Measures under Schools, Land Use Change #2.

Archaeological/Historic Resources

Environmental Setting:

Chualar Canyon has been designated as a Highly Sensitive Area on the Area Plan's Cultural Resources Map.

Impacts:

Construction and development activities could result in the destruction or degradation of historic cultural resources.

Mitigation Measures:

1. Pursuant to General Plan Policy 12.1.3, all proposed development, including land divisions, within the high sensitivity zone shall require an archaeological field inspection prior to project approval.

2. Pursuant to General Plan Policy 12.1.6, reasonable mitigation procedures shall be required prior to project approval where development could adversely affect archaeological resources.

3. All available measures, including purchase of archaeological easements, dedication to the County, tax relief, purchase of development rights, consideration of reasonable project alternatives, etc, shall be explored to avoid development on sensitive archaeological sites (General Plan Policy 12.1.7).

Land Use Change #5

Description:

The Land Use Change #5 designates a one block area (about 164 acres) west of the Greenfield city limits as Rural Grazing - 10 acre minimum lot size. The specific location of the area is between Twelfth and Thirteenth Streets and between Walnut and Pine Streets. Most of the area is occupied by Jekel Vineyards and in use as a vineyard with a central office and tasting room. The north eastern quarter of the section between Cherry and Pine Streets is privately owned by various individuals. Four structures currently exist in the Land Use Change Area. The land use change would create 14 additional building sites.

Visual Impacts

Environmental Setting:

The area surrounding the Greenfield city limits is essentially rural-agricultural in character. Row crops and vineyards dominate the view to the west and north of the land use change area while suburban residential uses are the dominant visual element to the south and east.

Impacts:

Buildout of the land use change area will increase the area of rural-suburban landscape. Residences located along Twelfth and Walnut Streets will experience a change in the view to the west and north respectively.

Mitigation Measures:

Agricultural Preservation

Environmental Setting:

With the exception of about 5 acres in the northeast corner the Land Use Change Area is currently in use as vineyards and row crop agriculture. The Area is designated as "Prime Farmlands" on the Area Plan's Important Farmlands Map.

Impacts:

The Rural Grazing land use designation would allow an additional 14 residential units in the Land Use Change Area. This density of development would eliminate the possibility of any large scale agricultural production. The Land Use Change has the potential to result in the loss of about 160 acres of commercial farmland.

Mitigation Measures:

Pursuant to General Plan 27.3.3 residential subdivisions shall be sited with sufficient distance from normal agricultural activities to prevent these activities from becoming attractive nuisances to future residents.

Land Use Change #6

Description:

Land Use Change #6 is located in Reliz Canyon, extending from the mouth of the Canyon at Elm Street to the Whitney Ranch to a depth of 1,000 feet. The Land Use Change covers an area of approximately 333 acres. The Area is designated as Low Density Residential with a minimum parcel size ranging from one to five acres depending on slope and other environmental constraints. County records indicate that there are nine existing structures in the subject portion of Reliz Canyon. Based upon cross-slope calculations it is estimated that as many as 126 additional building sites could result from this land use designation.

Geology/Soils

Environmental Setting:

Reliz Canyon is classified in the County Seismic Hazards Map as a Relatively Stable Area. The potentially active Reliz Fault System passes through the Canyon.

Soils in the Land Use Change Area include:

Chamise shaly loam, 15 to 30 percent slopes
Linne silty clay loam, 30 to 50 percent slopes
Linne-Diablo complex, 9 to 15 percent slopes
Lockwood shaly loam, 2 to 9 percent slopes
Lockwood shaly loam, 9 to 15 percent slopes
Placentia sandy loam, 9 to 15 percent slopes
Shedd silt loam, 30 to 75 percent slopes, severely eroded
Santa Lucia-Reliz association

Impacts:

Structures built within the Land Use Change Area may be subject to severe groundshaking.

Soil types in the Land Use Change Area in the Canyon vary depending upon location, however all the soil types share certain characteristics regarding their suitability for septic systems and construction sites. Generally, all soil types exhibit severe constraints to the use of septic systems because of slope, slow percolation rates, and shallow depth to rock. Constraints to construction of dwellings are severe in several areas and moderate in other areas. Excessive slope is the primary cause of severe constraints. Several soils also exhibit low strength and high shrink-swell properties.

Mitigation Measures:

1. As specified in General Plan Policy 15.1.1-4 and 15.1.8, a preliminary seismic hazard report addressing groundshaking shall be required before a development application is considered complete.

2. Earthquake danger should be considered in all building and engineering designs. All structures and utility lines shall conform to the standards of the latest adopted Uniform Building Code (General Plan Policy 15.1.10).

3. Critical structures shall be prohibited within 1/8 mile of the fault zone.

Hydrology

Environmental Setting:

An intermittent creek running along the bottom of the Canyon is the primary drainage of the Canyon watershed to the Arroyo Seco River. The lower portion of the Canyon is located within the 100 year floodplain. Steep slopes and shallow depth to rock result in shallow groundwater near the bottom of the Canyon. Ground water further up the Canyon is scarce.

Impacts:

On-site water supplies for development will be hard to find in portions of the Land Use Change Area. High groundwater near the Creek, steep slopes, and the shallow depth to rock

increases the likelihood of septic system leachate contaminating surface or groundwater resources.

Grading for new construction may disrupt the natural drainage course.

Improperly handled runoff may cause erosion of natural drainage courses and increase siltation in the creek and ultimately the Arroyo Seco River.

Mitigation Measures:

1. Area Plan Policy 16.2.1.1 (CSV) will restrict disturbance of natural drainage courses and their banks and vegetation unless such disturbances are with approved flood or erosion control or water conservation measures.

2. Pursuant to County General Plan Policy 16.2.3, 16.2.4, and the County Floodplain Ordinance, all new development in the floodplain shall be prohibited, except as permitted with review by the County Flood Control and Water Conservation District.

3. Development should be discouraged adjacent to the Creek to deter dumping, degradation, and subsequent erosion of the natural banks. Scenic, open space, or conservation easements should be encouraged along the creek and areas of steep slope.

4. General Plan Policy 5.2.1 requires owners of property adjacent to waterways or responsible agencies to maintain vegetation or provide other suitable means of preventing bank erosion or siltation.

5. General Plan Policy 15.1.13 requires that septic leachfields and drainage be directed away from unstable slopes.

6. Pursuant to General Plan Policy 16.2.7, the County should implement a comprehensive storm drainage plan for the subject portion of Reliz Canyon.

Energy Conservation

Impacts:

The increased number of residential units will consume more energy than the existing number of units. Domestic energy consumption is primarily due to transportation, heating and cooling, and household appliances.

Mitigation Measures:

1. Pursuant to General Plan Policy 13.1.1, lots shall be oriented to maximize a structures solar gain and minimize energy losses where possible.

2. Cluster development should be encouraged where such development can conserve energy (General Plan Policy 13.3.2).

3. In accordance with General Plan Policy 13.4.3, building designs which reduce energy demands shall be encouraged.

4. Opportunities for reducing energy used for transportation shall be addressed in plans for major projects pursuant to General Plan Policy 13.3.3.

5. Pursuant to General Plan Policy 38.1.4, the County shall encourage transportation alternatives.

6. General Plan Policy 14.2.1 requires that solar energy be the primary heating source in all new swimming pools where it is most cost effective.

Visual Impacts

Environmental Setting:

The dominant visual features of Reliz Canyon are its steep walls and the creek cutting its way along the Canyon's floor. Fences and other signs of cattle grazing help create a rural atmosphere. The existing home sites occur primarily near the entrance of the Canyon. Elm Avenue/Highway 16, the access road to the Canyon, is a proposed scenic route. The sides and interior of the Canyon are designated as highly sensitive areas on the Planning Area's Visual Sensitivity Map (Area Plan p.18).

Impacts:

Low density development of the mouth of the Canyon will create an inharmonious element in the essentially rural, bucolic visual fabric of the canyon. Building sites will be in most abundance along the bottom of the canyon near the road, which is the public viewing area. The impact of this land use change will depend upon the actual density of development.

Mitigation Measures:

1. Residences and structures should be sited and designed to minimize their visual impact. Where parcels occur in visually sensitive areas, as identified by the Area Plan's Visual Sensitivity Map (p.18), design review shall occur pursuant to Area Plan Policy 26.1.6.1 to insure the visual integrity of the area.

Also see Mitigation Measures 2-4, Visual Impacts, Land Use Change #4

Air Quality

Impacts:

Development in the Canyon will result in localized degradation of air quality, primarily due to vehicle emissions and smoke from fireplaces. AMBAG estimates home based emissions from the projected buildout of the Land Use Change will result in the following emissions:

Carbon Monoxide	42 tons/year
Hydrocarbons	4 tons/year
Nitrogen Oxides	2 tons/year

Dust and exhausts from heavy equipment will degrade localized air quality during construction.

Mitigation Measures:

See Mitigation Measures, Air Quality, Land Use Change #4

Water Supply and Quality

Environmental Setting:

There are currently no public or community water systems supplying water in Reliz Canyon. Water is derived from wells near the mouth of the Canyon drawing on groundwater from the Arroyo Seco River. Wastewater is also handled by individual treatment systems.

Impacts:

As discussed under Hydrology above, on-site water supplies may be difficult for particular parcels. High groundwater near the Creek, steep slopes, and the shallow depth to rock increases the likelihood of septic system leachate contaminating surface or groundwater resources. Urban pollutants such as sand, silt, organic matter, domestic pesticides and fertilizers, fuels, grease, and exhaust particulates may also be washed by runoff into receiving waters.

Mitigation Measures:

1. Pursuant to General Plan Policies 21.1.7 and 21.1.9, the County will monitor surface and groundwater quality and support investigations of and remedies to pollution problems.

2. See Mitigation #5 under Hydrology above.

Noise

Environmental Setting:

No noise level data is available for Reliz Canyon. The County General Plan specifies a noise level between 50 and 55 dB(A) as acceptable in residential areas.

Public Services

Impacts:

Ambient noise levels in the area will increase due to the intensification of use. The primary noise source will be increased automobile traffic. A secondary source of noise will be domestic activities.

Mitigation Measures:

1. Noise levels in the area should be monitored and maintained consistent with General Plan Policy 22.2.1 which requires new development to conform to the noise parameters on page 81 of the County General Plan.

Transportation

Environmental Setting:

Reliz Canyon Road is a nonclassified road which is the only public road in the Canyon. It is a two lane road in the area of the Land Use Change. Farther up the Canyon the road narrows to one lane in many places until terminating at private property. Average Annual Daily Traffic Counts (AADTs) for Reliz Canyon Road from Elm Street to the end of the Road were 150 vehicles per day in 1985. Level of Service (LOS) data is not available for Reliz Canyon Road. Elm Street is a minor arterial which also acts as the collector road for Reliz Canyon Road. Elm Street crosses the Arroyo Seco River to the north and leads to Greenfield to the east. AADT counts for Elm Street near Reliz Canyon Road were 500 in 1985. The 1982 LOS for this road segment was C in 1982. The LOS for the Arroyo Seco River Bridge (Bridge #320) was F in 1982.

Impacts:

AMBAG estimates that 121 additional residences in Reliz Canyon will yield 1,308 vehicle trips per day. This would more than double the AADT for Reliz Canyon Road and Elm Street near Reliz Canyon Road. The LOS for Elm Street would probably decrease, while traffic at the Arroyo Seco Bridge would become even worse.

Rural development patterns require residents to travel greater distances for necessary goods and services.

Mitigation Measures:

1. The County Department of Public Works indicates that improvements, including widening, to both Reliz Canyon Road and Elm Avenue may be necessary. General Plan Policies 37.1.1 and 37.1.2 require the County Transportation Commission to coordinate the provisions of the Central Salinas Valley Area Plan with the Monterey County Transportation Plan and other regional transportation plans. The current County Transportation Plan lists reconstruction of the Elm Avenue Bridge (#321) in its Long Range Program.

also see Mitigation Measures, Land Use Change #4

Fire Protection -

Setting:

Reliz Canyon is located within an area identified as having High Fire Hazards. The area is served by the Greenfield Fire Protection District. The District is staffed by 22 volunteers.

Impacts:

Additional residential development in the Canyon will increase the possibility of an accidental fire. New development will also place a greater demand on the existing level of service.

Mitigation Measures:

1. Pursuant to General Plan Policy 17.3.4, subdivision of parcels in the Canyon should be contingent upon the provision of water supplies for fire suppression. Water systems constructed shall be designed to the standards shown in Table 2 on page 62 of the County General Plan (General Plan Policy 17.3.5).

2. see Mitigation Measure #2, Land Use Change #4

Schools-

Environmental Setting:

Reliz Canyon lies within the Greenfield Union Elementary and King City Joint Union High School Districts. Enrollments at Greenfield Union have exceeded the districts capacity since 1980. King City Union High School District is expected to meet enrollments until the mid 1990s (AMBAG, Systems Capacity Analysis, 1986).

Impacts:

Mark Lytle of the Greenfield School District estimates that about 2 students per household may be generated by new development, depending on housing type, household income, and other variables. This could result in 242 additional students at maximum buildout (Pers. Comm. 12/10/86). However, because actual buildout will probably be less than the maximum possible, the actual number of additional students will probably also be less. King City Joint Union High School District Superintendent Floyd Siders estimates that approximately .15 high school students will be generated per household, which would yield approximately 18 additional high school students (Pers. Comm. 11/26/86). New residential development will also generate approximately 26 additional students who will require special educational facilities (Pers. Comm., Robert Brown, 11/25/86).

Mitigation Measures:

- see Mitigation Measures under Schools, Land Use Change #2.

Archaeological Resources

Environmental Setting:

Reliz Canyon is an area which has been designated as a High Sensitivity Zone on the Planning Area's Cultural Resources Map. Several structures of archaeological significance exist in Reliz Canyon (see Table 2 and Figure 4 of Area Plan).

Impacts:

Construction and development activities could result in the destruction or degradation of historic cultural resources. Additional residents in the area may result in increased visitors to the sites which may in turn result in degradation or loss of archaeological resources.

Mitigation Measures:

1. Pursuant to General Plan Policy 12.1.3, all proposed development, including land divisions, within the high sensitivity zone shall require an archaeological field inspection prior to project approval.

2. Pursuant to General Plan Policy 12.1.6, reasonable mitigation procedures shall be required prior to project approval where development could adversely affect archaeological resources.

3. All available measures, including purchase of archaeological easements, dedication to the County, tax relief, purchase of development rights, consideration of reasonable project alternatives, etc, shall be explored to avoid development on sensitive archaeological sites (General Plan Policy 12.1.7).

Agricultural Preservation

Environmental Setting:

Farmlands of Statewide Importance occur near the mouth of Reliz Canyon. Agricultural operations exist near this area as well as well as along Elm Avenue and Arroyo Seco Road.

Impacts:

Residential development near the mouth of Reliz Canyon may restrict use of the Farmlands of Statewide Importance near the mouth of the Canyon. Vehicle traffic resulting from residential development may compete with farm equipment for use of Elm Avenue and Arroyo Seco Road. Agricultural equipment and farming operations may be perceived as a nuisance by new residents. Increased residential uses in the Reliz Canyon area may serve as an inducement to convert the agricultural area between Reliz Canyon and the City of Greenfield to residential use as well.

Mitigation Measures:

1. General Plan Policy 27.3.3 requires residential

subdivisions to be sited with sufficient distance from normal agricultural activities to prevent these activities from becoming nuisances to future residents.

2. Pursuant to General Plan Policy 30.0.2, permanent, well defined buffer areas shall be required for all new non-agricultural development to be located adjacent to agricultural land uses.

Land Use Change #7

Description:

Land Use Change #7 transfers approximately 24 acres of land at the mouth of Pine Canyon near King City to High Density Residential. There are 27 existing residences in this Map Change area. The High Density designation would allow up to 80 additional units. The High Density designation allows a maximum of 107 residential units in the Map Change area. Most of the 27 existing residences have been built a lower density than that permitted under the High Density designation which will limit the actual number of residences in this area at buildout.

Geology/Soils

Environmental Setting:

The area addressed in Land Use Change #7 has been identified as a moderate to moderately high hazard area with respect to potential earthquake damage. (Burkland and Associates, 1975). The soils in the area of Land Use Change #7 are a Rincon clay loam with zero to two percent slope (Monterey County Soils Survey). Runoff of this soil type is slow thereby reducing erosion hazards. This soil type does, however, present a limited constraint to the construction of foundations and streets because of a high shrink-swell potential.

Impacts:

Land Use Change #7 will not alter the geology of the area, however, seismic hazards should be considered in the design of new development. No critical structures are foreseeable in the Map Change area. Multi-family residential structures are permitted under the High Density land use designation. High density residential use will result in a large portion of the Land Use Change area being covered with impervious surfaces. Potential damage to foundations, concrete slabs, patios, sidewalks, and streets due to shrink-swell properties of soils.

Mitigation Measures:

1. Consistent with General Plan Policy 15.1.7, liquefaction investigations should be required for critical use structures and multi-family dwellings over 4 units.

2. Earthquake and liquefaction hazards should be considered in all building and engineering designs. Foundations should be designed by a soils engineer who should also supervise their construction.

Hydrology

Environmental Setting:

The area addressed in Land Use Change #7 is located near Pine Canyon Creek, which drains a watershed area of approximately 15.5 square miles to the northeast into the Salinas River. The Salinas River drains into the Pacific Ocean approximately 72 miles from Pine Canyon. Due to its location, elevation, and specific topography, there is little potential for flooding in the area of Land Use Change #7.

Impacts:

High density residential use will result in a large portion of the Land Use Change area being covered with impervious surfaces. This in turn will result in increased storm runoff from the site. Improperly handled runoff may cause erosion of soils near receiving drainages.

Mitigation Measures:

Suitable means of dissipating the energy of storm runoff should be installed to minimize erosion and siltation of natural drainage courses.

Energy Conservation

Impacts:

The increased number of residential units will consume more energy than the existing number of units. Domestic energy consumption is primarily due to transportation, heating, cooling, and household appliances.

Mitigation Measures:

The County should encourage the use of passive and active solar energy systems.

Visual Impacts

Environmental Setting:

The two block area comprising Land Use Change #7 is located adjacent to and south of Pine Canyon Road. The area is located adjacent to a medium density neighborhood. There are several large parcels that are relatively underdeveloped, allowing a view through the blocks and to the surrounding hillsides.

Impacts:

High density residential development will result in a loss of open space, precluding the view between blocks. The views of the nearby hills would be partially obscured for residents located in the interior of the Map Change area.

Because the Map Change area is located near the mouth of Pine Canyon, allowing high density development will detract from the county-suburban setting by creating a more urban impression.

The relatively large proportion of vehicles per acre associated with high density residential development will also detract from the areas aesthetic qualities.

An increase in the use of night-time and outdoor lighting will create more glare for residents of adjacent developments and surrounding hillsides.

Mitigation Measures:

1. Extensive landscaping with drought tolerant species should be required, to alleviate visual impacts of the high density residential land use. Trees should be planted along streets within the Land Use Change Area to reduce the visual impact of street-parked vehicles.
2. Adequate off street parking should be provided for all residential units.
3. New subdivisions should contain Covenants, Conditions, and Restrictions prohibiting vehicles parked on the street for more than 48 hours.
4. Additional street lights should be of a design which reduces glare for residences of surrounding hillsides.

Air Quality

Impacts:

High density residential development of the Land Use Change area will incrementally increase the amount of air pollutants in the Salinas Valley and the Monterey - Santa Cruz - San Benito Air Basin as a whole. The main source of air pollutants will be vehicle trips. AMBAG estimates home based emissions at buildout will be:

Carbon Monoxide	15 tons per year
Hydrocarbons	1 ton per year
Nitrogen Oxides	0 tons per year

Additional paved surfaces which absorb the sun's heat and release it into the atmosphere in the vicinity of the project as well as waste heat generated by domestic sources such as air conditioners, result in a localized increase in air temperatures which can contribute to air quality problems.

A short-term impact will result from construction activities which create dust and equipment emissions.

Mitigation Measures:

1. The 1982 Air Quality Plan for the Monterey Bay Region proposed several methods for reducing pollution levels caused by motor vehicles, including the following:

A) Improve public transit -

- the County should continue to assist in the implementation of AMBAG's Salinas Valley Short Range Transit Plan.
- area carpool programs should be promoted.
- provide a Park-and-Ride lot near the Pine Canyon and Jolon Road intersection.
- the Monterey County Transportation Commission should be encouraged to have Monterey - Salinas Transit routes extended south to King City.

2. Encourage the implementation of the Pine Canyon Greenway providing bicycle routes from Pine Canyon to King City. Bike lane access to the Pine Canyon Store should be provided to reduce vehicle trips for small grocery items.

Water Quality and Supply

Environmental Setting:

Water supplies in Pine Canyon are drawn from two sources: the Upper Valley sub-basin of the Salinas Valley Groundwater Basin and local wells along the floor of the upper canyon. Water from the Upper Valley sub-basin is supplied to much of the Pine Canyon area by the Little Bear Water Company. Little Bear currently serves 410 customers in the Pine Canyon Area and estimates that they have capacity to serve 420 more residences. The recently approved Pine Meadows Estates subdivision will account for 142 residences of the available capacity leaving capacity for 298 residences, not including supplies necessary for fire fighting. However, as discussed in the Inventory and Analysis summary of the Area Plan (Chapter 1), all sub-basins of the Salinas Valley Basin are currently in a condition of overdraft.

Groundwater quality in Pine Canyon is generally poor, as is the water in Pine Canyon Creek. Relatively steep slopes and soils with slow percolation characteristics decrease the effectiveness of septic systems and lead to contamination of surface and groundwater resources. As high density development generally precludes septic systems, contamination of ground water from septic systems will not be a problem.

The EIR for the recent Pine Meadow Estates Subdivision noted that materials which accumulate on street and parking surfaces have been found to contribute substantially to

pollution when washed into receiving waters by storm runoff. Contaminate matter in surface runoff is generally similar to sanitary wastewater containing sand, silt, and organic matter in addition to vehicular oils, fuels, particulate exhaust emissions, rust, and particles from tires. Fuels and hydrologic fluids from automobiles degrade asphalt and thereby increase the amount of inorganic solids on the receiving drainage area. The same EIR also noted that non-biodegradable fertilizers and pesticides used in landscaping are carried off in surface waters and can degrade water quality in the Creek and its drainages.

Impacts:

High density development allowed under Land Use Change #7 may result in further degradation of Pine Canyon Creek and the Salinas River by contaminants carried in storm runoff.

Additional residential uses will incrementally exacerbate the overdraft of the Upper Valley sub-basin and the Salinas Valley Basin in general. 30,880 gallons of water per day will be required if the maximum of 80 additional units are built in the map change area.

Mitigation Measures:

1. General Plan Objectives 6.1. and 6.2 and Policy 6.2.1 state the County's objective to eliminate the overdraft of groundwater resources and develop supplemental water supplies.

2. General Plan Policy 6.1.2 requires that water conservation measures be encouraged. Pursuant to this Policy, drought tolerant species should be required in all landscaping plans.

3. High density projects should not be approved until sewage treatment capacity is available for the new development.

4. The County should develop a new source of water to supplement the Salinas Valley Groundwater Basin.

Noise

Environmental Setting:

No noise level data is available for the Land Use Change area. The County General Plan specifies a noise level between 50 and 60 dB(A) as acceptable in residential and multi-family areas.

Impacts:

The increased number of households in the Land Use Change area will probably result in an increase in ambient noise levels due to increased vehicle use in the area. Light auto traffic typically produces a noise level of about 55 - 65 dB(A) at a distance of 50 feet. Residences closer to Pine Canyon Road may occasionally experience noise levels higher

than 60 dB(A).

Noise levels in the Land Use Change area may temporarily increase during construction activities.

Mitigation Measures:

1. Pursuant to General Plan Policy 22.2.6, a noise level analysis of the Land Use Change Area should be conducted to determine the site's noise characteristics.

2. General Plan Policies 22.2.1 and 22.2.2 will mitigate noise impacts and noise levels by requiring noise analyses and special construction techniques.

3. Construct a sound wall between Pine Canyon Road and the residential property in the land use change area.

Transportation

Environmental Setting:

The location of Land Use Change #7 is adjacent to Pine Canyon Road, between Burns and Los Ositos Roads, less than 1/2 mile south of intersection of Pine Canyon and Jolon Roads. Highway 101 is less than one quarter mile north of this intersection. Both Pine Canyon and Jolon Roads are county maintained. Jolon Road serves as an arterial roadway, with Pine Canyon Road the collector road for the entire Pine Canyon area. Traffic counts for Pine Canyon Road taken in 1985 indicate the Level of Service (LOS) north of Merritt Street was LOS C. The segment of Pine Canyon Road south of Merritt Street is currently at LOS D, which is defined as an unstable flow, little freedom to maneuver, and low comfort and convenience (see Table below). The Level of Service for Jolon Road and Highway 101 was B and A respectively. The Monterey County Transportation Plan established LOS C or better as the objective for all County roads.

Table EIR-3

Roadway Segment	1985 Average Daily Traffic	Current Level of Service
Pine Canyon Road Jolon Road to Merritt Street	3000	C
South of Merritt Street	950	D

Source: Monterey County Department of Public Works;
CALTRANS, District 5

Impacts:

AMBAG has estimated that the 80 additional units made possible by land use change #7 will result in 486 additional vehicle trips per day. Most, if not all, of these additional vehicle trips will utilize the section of Pine Canyon Road currently at LOS C. This additional traffic will incrementally decrease the level of service for this road segment. A decrease in level of service for the section of Pine Canyon Road north of Merritt Street may impact the segment of Pine Canyon Road south of Merritt Street which, is currently at LOS D, by further decreasing the level of service.

Mitigation Measures:

1. Pursuant to General Plan Policy 20.1.2, the County should encourage public transit and alternative methods of transportation in the Pine Canyon area.

2. Encourage the implementation of the Pine Canyon Greenway providing bicycle routes from Pine Canyon to King City. Bike lane access to the Pine Canyon Store should be provided to reduce vehicle trips for small grocery items.

Public Services

Fire Protection -

Environmental Setting:

Fire hazards throughout Pine Canyon are rated as very high. The land use change area is located in County Service Area (CSA) 61. The County contracts with the Department of Forestry to provide leadership and administrative services for a 15 person volunteer fire department.

Impacts:

High density residential development will increase the potential of accidental fire. New development will also place an incrementally greater demand on the existing level of service.

Mitigation Measures:

see Mitigation Measures, Fire Protection, Land Use Change #4

Police Protection -

Setting:

Pine Canyon is located within Sheriff's Patrol Beat XI. This Beat area is large, sparsely populated, and therefore has long response times. The beat is covered by one deputy on patrol at all times.

Impacts:

The land use change may add a significant number of new residences to Patrol Beat XI. Residents in this patrol beat will have to compete with a larger number of homes for police services. The high density designation represents an urban level of development which will be served by rural level of police protection services.

Mitigation Measures:

1. New development should incorporate crime preventing design features which can be recommended by the Sheriff's Department.

2. Police protection services should be increased in the Pine Canyon area of Patrol Beat XI.

Schools -

Setting:

Pine Canyon is served by the King City Union School District for grades K-8 and by the King City Joint Union School District for high school students. Enrollments at King City Union School District currently exceed facility capacity. King City Union High School District is expected to meet enrollments until the mid 1990s (AMBAG, Systems Capacity Analysis, 1986).

Impacts:

Additional residential development will generate additional students. Dr. Tom Fulton, King City Union District Superintendent, estimates that new residential development could generate as much as 1.5 to 2 students per household, depending on housing type, household income, and other variables. This could result in 120 to 160 additional students at maximum buildout (Pers. Comm. 11/25/86). However, because actual buildout will probably be less than the maximum possible, the actual number of additional students will probably also be less. King City Joint Union High School District Superintendent Floyd Siders estimates that approximately .15 high school students will be generated per household, which would yield approximately 12 additional high school students (Pers. Comm. 11/26/86). Approximately 15 of the new students generated will require special education.

Mitigation Measures:

1. School districts may impose developer fees on new residential construction to finance the construction and rehabilitation of temporary and permanent facilities. (Govt. Code Sec. 53081.)

Solid Wastes -

Setting:

The Pine Canyon Area is served by the King City Disposal

Service Corporation which deposits wastes at the Jolon Road Landfill.

Impacts:

Additional residences resulting from Land Use Change #7 will incrementally add to the overall volume of wastes and shorten the life-span of the Jolon Road Landfill.

Mitigation Measures:

1. The County should promote recycling programs and industries.

LAND USE CHANGE #8

Description:

Land Use Change #8 designates approximately 1,765 acres of land located within 3,000 feet on either side of Pine Canyon Road from Merritt Street to the end of the existing Little Bear Water Company main (parcel 420-071-45) as Low Density Residential - 1 to 5 acres per dwelling unit. This designation does not effect the Medium Density Residential designation south of Pine Canyon Road (see Land Use Map). Approximately 40 residences currently occupy this area. Environmental constraints will determine the actual densities, however based upon cross-slope calculations it is estimated that as many as 842 additional units could be built under this land use designation.

Geology/Soils

Environmental Setting:

The area of Pine Canyon addressed in Land Use Change #8 contains separate areas which have been identified as having low, moderate, or moderately high hazards of earthquake damage. The Land Use Change Area is also bisected by a concealed inactive fault and the potentially active Reliz Fault System (see Seismic Hazards Map p. 21).

Soils types in the land use change area vary depending on the exact location, however all the soil types share certain characteristics regarding their suitability for septic systems and construction sites. Generally, all soil types exhibit severe constraints to the use of septic systems. The primary reason for this is slope with slow percolation rates near the floor of the Canyon and relatively shallow depth to rock along the sides of the Canyon. Constraints to the construction of dwellings range from moderate to severe. Slopes in the Land Use Change Area range from 15% to 30%. Excessive slope is a common characteristic among all soil types exhibiting severe constraints and most soil types with moderate constraints. These areas are typically located along the sides of the Canyon. Soils with moderate constraints tend to be located on the floor of the Canyon

and have low soil strength and high shrink swell potential.

Impacts:

Damage may occur to foundations, concrete slabs, patios, and roads due to seismic disturbances, slope, low soil strength, and shrink swell properties of soils.

Soils in the land use change area are not suited to the use of septic systems because of steep slopes and slow percolation rates. Improperly functioning septic systems may result in pollution of ground or surface water or other health hazards.

Mitigation Measures:

see Mitigation Measures, Geology and Soils, Land Use Change #4

Hydrology

Environmental Setting:

Pine Canyon Creek runs down the bottom of the Canyon draining a watershed area of about 15.5 square miles to the northeast into the Salinas River. Several minor drainage ravines drain the sides of the Canyon into Pine Canyon Creek. The sides of the Creek are generally steep. Wells in Pine Canyon are generally shallow indicating high groundwater.

Impacts:

Grading for new construction may disrupt natural drainage courses. Impervious surfaces will increase runoff volumes. Improperly handled runoff may cause erosion of natural drainage courses and increase siltation in Pine Canyon Creek or the Salinas River.

High groundwater in the land use change area in conjunction with the soil types and slopes discussed above increases the likelihood of septic system leachate contaminating surface or groundwater resources.

The steep slopes down to the Creek in many places encourages the dumping of refuse and garbage and lateral erosion.

Mitigation Measures:

1. Area Plan Policy 16.2.1.1 (CSV) will restrict disturbance of natural drainage courses and their banks and vegetation unless such disturbances are with approved flood or erosion control or water conservation measures.

2. Pursuant to General Plan Policy 5.2.1, owners of property adjacent to waterways or responsible agencies shall maintain vegetation or provide other suitable means of preventing bank erosion or siltation.

3. The Monterey County Floodplain Ordinance requires a 50 foot setback from the Creek.

4. Any development adjacent to the Creek should be discouraged to deter dumping, degradation, and subsequent erosion of the natural banks. Easements along the riparian corridor should be encouraged. The Pine Canyon Greenway should be promoted in the review of future development proposals.

5. Pursuant to General Plan Policy 16.2.7, the County should investigate the appropriateness of a comprehensive storm drainage plan for Pine Canyon.

Vegetation/Wildlife

Environmental Setting:

Pine Canyon Creek is a riparian corridor. All riparian habitats in the County are considered to be Areas of Special Biological Importance (ASBI) by the State Department of Fish and Game because of the abundance and variety of wildlife usually associated with them.

Impacts:

Development near or adjacent to the riparian corridor may disrupt riparian habitats, resulting in a loss of habitat for used by native and migratory birds, mammals, and amphibians for foraging, shelter, and nesting sites.

Land Use Change #8 may remove a significant amount of the 1,765 acres from use as habitat for mammals found in Pine Canyon.

Mitigation Measures:

1. Pursuant to Area Plan Policy 11.1.6, the County should identify environmentally sensitive areas in the Planning Area.

2. Pursuant to General Plan Policies 7.1.1, 9.1.1, and 9.1.2, development should be carefully planned in areas with a particular value to wildlife and wildlife reproduction, and shall provide for the conservation and maintenance of the plant communities.

3. General Plan Policy 7.1.2 encourages the protection of limited or threatened plant communities through dedications of permanent conservation easements and other appropriate means.

4. Environmental review consistent with CEQA shall occur where applicable.

5. See Mitigation Measures 1-3 under Hydrology above.

Energy Conservation

Impacts:

The increased number of residential units will consume more energy than the existing number of units. Domestic energy consumption is primarily due to transportation, heating and cooling, and household appliances.

Mitigation Measures:

1. The County should encourage the use of passive and active solar energy systems.

2. Project proposals should be evaluated to provide optimum solar access to all proposed units.

Visual Impacts

Environmental Setting:

Most of the area addressed in Land Use Change #8 is essentially rural. The landscape is dominated relatively unaltered terrain of the Canyon and the textures and patterns created by a variety of vegetative types. The Scenic Highways and Visual Sensitivity Map (p. 17) designates portions of the Land Use Change Area on both the northwest and southeast side of Pine Canyon Road as Highly Sensitive areas. Further down the Canyon is another area which has been designated as sensitive. The ridgetops along both sides of the Canyon are also designated as Highly Sensitive.

Impacts:

Scenic Quality of this portion of the Canyon may be depreciated by the intrusion of inharmonious or discordant sights. The existing rural character may be lost to a suburban landscape. The impact of this land use change will depend upon the actual density of development.

Mitigation Measures:

1. Residences and structures should be sited and designed to minimize their visual impact. Area Plan Policy 26.1.6.1 (CSV) requires that landscaping, building design, and siting of developments in the sensitive and highly sensitive areas of the Visual Sensitive Map shall be subject to design review to insure the visual integrity of the area.

2. General Plan Policy 7.2.1 states that landowners and developers shall be encouraged to preserve the integrity of existing terrain and natural vegetation in visually sensitive areas such as hillsides and ridges.

Air Quality

Impacts:

Air quality in the Canyon and the air basin will be degraded, primarily due to auto emissions. AMBAG estimates home based emissions from the projected buildout of this portion of Pine Canyon will be:

Carbon Monoxide 450 tons/year
Hydrocarbons 55 tons/year
Nitrogen Oxides 15 tons/year

Dust and exhausts from heavy equipment will degrade localized air quality during construction.

Mitigation Measures:

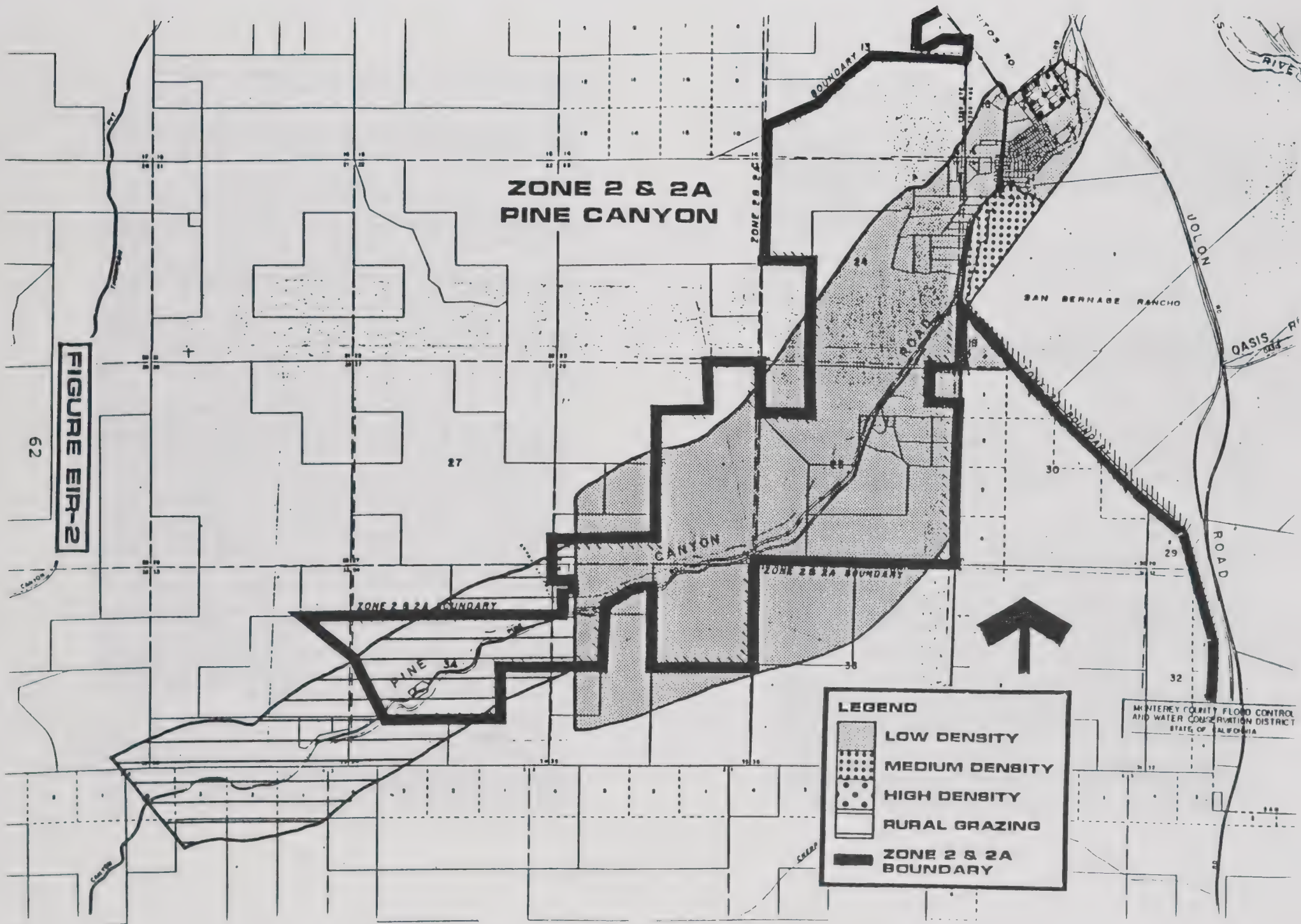
1. The County should encourage alternative transportation routes such as bicycle paths from Pine Canyon to King City to reduce the number of vehicle trips in the Canyon.
2. The Pine Canyon Creek Greenway should be extended up the Canyon to provide access to residential areas.
3. The County should encourage Monterey Salinas Transit to extend service to King City and Pine Canyon.

Water Supply and Quality

Environmental Setting:

Water supplies in Pine Canyon are drawn from two sources: the Upper Valley sub-basin of the Salinas Valley Groundwater Basin and local wells along the floor of the upper canyon. Water from the Upper Valley sub-basin is supplied to much of the Pine Canyon area by the Little Bear Water Company. Little Bear currently serves 410 customers in the Pine Canyon Area and estimates that they have capacity to serve 420 more residences. The recently approved Pine Meadows Estates subdivision will account for 142 residences of the available capacity leaving capacity for 298 residences, not including reserves necessary for fire fighting. Little Bear could expand their facilities at some point in time should demand exceed their existing capacity. However, Little Bears service area is currently restricted by moratorium to the Zone 2A area shown on Figure EIR-2. Furthermore, the County Environmental Health Department indicates Little Bear's infrastructure up the Canyon is erratic, consisting of a conglomeration of pipes from previously independent private water companies. Water pressure varies in different locations within the Canyon, while some areas are not served at all (Pers. Comm., Al Friedrich, 11/25/86).

FIGURE EIR-2



Groundwater quality in Pine Canyon is generally poor, as is the water in Pine Canyon Creek. Generally, water quality gets worse as one goes up the Canyon. Total dissolved solids and high sulfates are the primary contaminants found in wells in the Canyon. Nitrate levels in water supplied by Little Bear fluctuates from fair to relatively high. Levels of total dissolved solids are also occasionally high.

Relatively steep slopes and soils with slow percolation characteristics decrease the effectiveness of septic systems and lead to contamination of surface and groundwater resources. Sewer service is provided in the lower portion of Pine Canyon by the Sierra Vista Properties Corporation, however, all of Sierra Vista's available capacity is currently committed.

The EIR for the recent Pine Meadow Estates Subdivision noted that materials which accumulate on street and parking surfaces have been found to contribute substantially to pollution when washed into receiving waters by storm runoff. Contaminate matter in surface runoff is generally similar to sanitary wastewater containing sand, silt, and organic matter in addition to vehicular oils, fuels, particulate exhaust emissions, rust, and particles from tires. Fuels and hydrologic fluids from automobiles degrade asphalt and thereby increase the amount of inorganic solids on the receiving drainage area. The same EIR also noted that non-biodegradable fertilizers and pesticides used in landscaping are carried off in surface waters and can degrade water quality in the Creek and its drainages.

Impacts:

Additional residential uses will incrementally exacerbate the overdraft of the Upper Valley sub-basin and the Salinas Valley Basin in general. Assuming an average household water consumption of .411 acre-feet, Land Use Change #8 would create a demand for an additional 346 acre-feet per year.

Portions of the Land Use Change area are outside Little Bear's service area. Groundwater supplies in these areas may be inadequate with respect to quality and supply.

Because of the severe constraints posed by soils and slope, use of septic systems in certain areas may further degrade water resources within the Canyon. Contaminants carried in stormwater runoff may also degrade water quality.

Mitigation Measures:

1. See Mitigation Measures 1 and 2 under Water Supply and Quality, Land Use Change #7.

2. Area Plan Policy 6.1.3 (CSV) requires that new development shall only be approved in areas with adequate water supplies. Proposals for new development in the Land

Use Change Area should be required to show that an adequate water supply at adequate pressure exists. Where water pressure is found to be inadequate, the developer should be required to improve the infrastructure to the development.

2. Septic system permits shall be subject to the conditions established by the County Department of Environmental Health. Pursuant to General Plan Policy 15.1.13, the County shall require septic leachfields and drainage plans to direct runoff and drainage away from unstable slopes.

3. General Plan Policy 21.3.3 prohibits the division of land or use permits for residential uses without proof that an adequate waste disposal system can be developed. Lot sizes shall be required to be larger than minimum other wise allowed where necessary to insure proper functioning of septic systems.

4. Pursuant to the County Erosion Control Ordinance and General Plan Policy 21.2.3, any residential development which will require 20 or more parking spaces shall include oil, grease, or silt traps, or other suitable means to protect water quality.

5. Developers and Little Bear Water Company should be required to cooperate with the County Flood Control and Water Conservation District in a program of water conservation and development of new water supplies.

Noise

Environmental Setting:

No noise level data is available for the Land Use Change Area. The County General Plan specifies a noise level between 50 and 60 dB(A) as acceptable in residential and multi-family areas.

Impacts:

Noise levels in the area will increase due to the intensification of use. The primary noise source will be increased automobile traffic.

Mitigation Measures:

1. Noise levels in the area should be monitored and maintained consistent with General Plan Policy 22.2.1 which requires new development to conform to the noise parameters on page 81 of the County General Plan.

Transportation

Environmental Setting:

The location of Land Use Change #8 is either side of Pine Canyon Road, from Merritt Street to parcel 420-071-45, to a distance of 3,000 feet. Pine Canyon Road is the collector road for this area. Jolon Road is a minor arterial that accesses Pine Canyon Highway 101 is less than one quarter of a mile from this intersection. Both Pine Canyon and Jolon Roads are county-maintained. Traffic counts for Pine Canyon Road taken in 1985 indicate the Level of Service (LOS) north of Merritt Street was LOS C. The segment of Pine Canyon Road south of Merritt Street is currently at LOS D, which is defined as an unstable flow, little freedom to maneuver, and low comfort and convenience (see Table below). The Level of Service for Jolon Road and Highway 101 was B and A respectively. The Monterey County Transportation Plan established LOS C or better as the objective for all County roads.

Impacts:

AMBAG has estimated that the 842 additional units possible under Land Use Change #8 will result in 8,419 additional vehicle trips per day. All of these additional vehicle trips will utilize the section of Pine Canyon Road currently at LOS D, as well as the section of road now at LOS C. Additional traffic will decrease the level of service for both road segments. The County Department of Public Works estimates that the additional vehicle trips at buildout will reduce the Level of Service beyond Merritt Street to LOS "E".

Mitigation Measures:

1. The County should encourage public transit and alternative methods of transportation in the Pine Canyon area.
2. Encourage the implementation of the Pine Canyon Greenway providing bicycle routes from Pine Canyon to King City. Bike lane access to the Pine Canyon Store should be provided to reduce vehicle trips for small grocery items.
3. Some improvements to Pine Canyon Road will become necessary as traffic volumes increase. Specific improvements shall be determined by the County Department of Public Works during the review of individual project proposals.

Public Services

Fire Protection -

Environmental Setting:

Fire hazards throughout Pine Canyon are rated as very high. The land use change area is located in County Service Area (CSA) 61. The County contracts with the Department of

Forestry to provide leadership and administrative services for a 15 person volunteer fire department.

Impacts:

Development of the Canyon will increase the possibility of an accidental fire. New development will also place a greater demand on the existing level of service. Private roads may not be adequate to provide emergency access to new residential developments.

Mitigation Measures:

see Mitigation Measures, Fire Protection, Land Use Change #4

Police Protection -

Setting:

See Land Use Change #7.

Impacts:

The land use change may add a significant number of new residences to Patrol Beat XI. Residents in this patrol beat will have to compete with a larger number of homes for police protection.

Mitigation Measures:

1. New development should incorporate crime preventing design features which can be recommended by the Sheriffs Department.
2. Police protection services should be increased in the Pine Canyon area of Patrol Beat XI.

Schools -

Setting:

Pine Canyon is served by the King City Union School District for grades K-8 and by the King City Joint Union School District for high school students. Enrollments at King City Union School District currently exceed facility capacity. King City Union High School District is expected to meet enrollments until the mid 1990s (AMBAG, Systems Capacity Analysis, 1986).

Impacts:

Additional residential development will generate additional students. Dr. Tom Fulton, King City Union District Superintendent, estimates that new residential development could generate as much as 1.5 to 2 students per household, depending on housing type, household income, and other variables. This could result in 1,263 to 1,684 additional students at maximum buildout (Pers. Comm. 11/25/86). However, because actual buildout will probably be less than the maximum possible, the actual number of additional students will probably also be less. King City Joint Union High School District Superintendent Floyd Siders estimates

that approximately .15 high school students will be generated per household, which would yield approximately 126 additional high school students (Pers. Comm. 11/26/86). New residential development will also generate approximately 84 additional students who will require special educational facilities (Pers. Comm., Robert Brown, 11/25/86).

Mitigation Measures:

1. School districts may impose developer fees on new residential construction to finance the construction and rehabilitation of temporary and permanent facilities. (Govt. Code Sec. 53081.)

Solid Wastes -

Setting:

The Pine Canyon Area is served by the King City Disposal Service Corporation which deposits wastes at the Jolon Road Landfill.

Impacts:

Additional residences resulting from Land Use Change #8 will incrementally add to the overall volume of wastes and shorten the life-span of the Jolon Road Landfill.

Mitigation Measures:

1. The County should promote recycling programs and industries.

Archaeological/Historic Resources

Environmental Setting:

Most of the area addressed in Land Use Change #8 lies within a highly sensitive archaeological zone.

Impacts:

Construction and development activities could result in the destruction or degradation of historic cultural resources. Additional residents in the area may result in increased visitors to the sites which may in turn result in degradation or loss of archaeological resources.

Mitigation Measures:

1. Pursuant to General Plan Policy 12.1.3, all proposed development, including land divisions, within the high sensitivity zone shall require an archaeological field inspection prior to project approval.
2. Pursuant to General Plan Policy 12.1.6, reasonable mitigation procedures shall be required prior to project approval where development could adversely affect archaeological resources.
3. All available measures, including purchase of

archaeological easements, dedication to the County, tax relief, purchase of development rights, consideration of reasonable project alternatives, etc, shall be explored to avoid development on sensitive archaeological sites (General Plan Policy 12.1.7).

LAND USE CHANGE #9

Description:

Land Use Change #9 designates approximately 1,107 acres of land located 1,500 feet on either side of Pine Canyon Road from parcel 420-071-45 to a point two and one half miles up the road as Rural Grazing with a minimum parcel size of ten acres. It is estimated that 12 residences are currently located in this area. Based upon cross-slope calculations it is estimated that 98 additional units could result from this land use designation.

Geology/Soils

Environmental Setting:

The area of Pine Canyon addressed in Land Use Change #9 is a relatively stable area classified as having Low Seismic Hazards. The Land Use Change Area is however located near the potentially active Reliz Fault System (see Seismic Hazards Map p. 21).

Soils types in the land use change area vary depending on the exact location, however all the soil types share certain characteristics regarding their suitability for septic systems and construction sites. Generally, all soil types exhibit severe constraints to the use of septic systems. The primary reason for this is excessive slope with a shallow depth to rock. Slow percolation rates are also a constraint near the floor of the Canyon. Constraints to the construction of dwellings are generally severe. Excessive slope is a common characteristic among all of the soil types exhibiting severe constraints. Several soils also exhibit low strength and high shrink-swell properties.

Impacts:

Damage may occur to foundations, concrete slabs, patios, and roads due to seismic disturbances, slope, low soil strength and shrink swell properties of soils.

Soils in the land use change area are not suited to the use of septic systems because of steep slopes, depth to rock, and slow percolation rates. Improperly functioning septic systems may result in polly

Environmental Setting:

Pine Canyon Creek is an intermittent stream which runs along the bottom of the Canyon draining a watershed area of about

15.5 square miles to the northeast into the Salinas River. Several minor drainage ravines drain the sides of the Canyon into Pine Canyon Creek. The sides of the Creek are generally steep. Well systems will require approval from the County Environmental Health Department.

Hydrology

Environmental Setting:

Pine Canyon Creek is an intermittent stream which runs along the bottom of the Canyon draining a watershed area of about 15.5 square miles to the northeast into the Salinas River. Several minor drainage ravines drain the sides of the Canyon into Pine Canyon Creek. The sides of the Creek are generally steep. Wells in Pine Canyon are generally shallow indicating high groundwater.

Impacts:

Grading for new construction may disrupt natural drainage courses. Impervious surfaces will increase runoff volumes on individual building sites creating site specific erosion problems. Improperly handled runoff may also cause erosion of natural drainage courses and increase siltation in Pine Canyon Creek and eventually the Salinas River.

High groundwater in the land use change area in conjunction with the soil types and slopes discussed above increases the likelihood of septic system leachate contaminating surface or groundwater resources.

The steep slopes down to the Creek in many places encourages the dumping of refuse and garbage and lateral erosion.

Mitigation Measures:

see Mitigation Measures, Hydrology, Land Use Change #8

Vegetation/Wildlife

Environmental Setting:

The portion of Pine Canyon addressed in Land Use Change #9 is located within the foothills of the eastern slopes of the Santa Lucia Range. The Santa Lucia Range has been described as a region with a very rich flora, attributable to the wide variety of habitats present and the fact that many species have evolved locally while others are relics from times when the climate was very different. As a consequence, many species in the Santa Lucia Range are rare or of limited distribution and are readily threatened by human activities in their habitats (EIS, Multi-Purpose Range Complex - Fort Hunter Liggett, CA, Department of the Army, May 1986). Pine Canyon Creek is a riparian corridor. All riparian habitats in the County are considered to be Areas of Special Biological Importance (ASBI) by the State Department of Fish and Game because of the abundance and variety of wildlife usually associated with them. Plant communities native to

the Pine Canyon area include riparian woodland, oak woodland, and chaparral. The EIR prepared for the Pine Meadows Estates Subdivision (EIR No. 81-105) identified several species of Oak native to Pine Canyon. While oak woodlands are not as threatened in California as riparian woodlands, many species of oak throughout the State are currently the topic of conservation concern because of a lack of regeneration of oak seedlings. Blue Oaks and Valley Oaks, as well as the digger pines which occur naturally in oak woodlands, are currently experiencing a lack of regeneration. The high mortality of oak seedlings is believed to be due to predation from rodents, deer, and cattle.

The sides of the Canyon are sparsely developed and in a relatively natural state providing habitat for many species of native plants and animals. Included among the animals are rodents, several species of predators, and larger mammals.

Impacts:

Development and human activities near the riparian corridor may disrupt riparian habitats, resulting in a loss of habitat for used by native and migratory birds, mammals, and amphibians for foraging, shelter, and nesting sites. Development in other areas of the Canyon will encroach upon the habitat of larger mammals requiring sizable ranges. Domestic animals such as dogs and cats will disturb native wildlife providing additional inducement for native species to abandon this portion of Pine Canyon. Animals migrating from this site to find new habitats will result in deaths of young, old and weaker animals due to increased competition for new territory, food, shelter, and nesting areas.

Increased human habitation of this area may result in the dumping of rubbish and other debris. Grasses and garden cuttings from ornamental and other non-native plants disposed of near the riparian corridor may seed the area and change its flora and fauna.

Increased human habitation of the area may also result in the loss of oak trees for use as firewood. Disappearance of predators which require extensive ranges may result in an increase in the population of rodents or deer which could exacerbate the lack of regeneration of oak seedlings.

Increased traffic and noise caused by intensified residential use will have an adverse effect on wildlife (see Transportation/Circulation).

Individually, development of ten acre homesites may not result in a significant impact, however, collectively, development of this area may have significant detrimental impacts.

Mitigation Measures:

1. Consistent with Area Plan Policy 11.1.6, the County should identify environmentally sensitive areas within the Central Salinas Valley. Areas expected to receive significant development pressure in the near future, such as Pine Canyon, should be a priority for these studies.

2. Environmental review consistent with CEQA shall occur where applicable.

3. Pursuant to General Plan Policies 7.1.1, 9.1.1, and 9.1.2, development should be carefully planned in areas with a particular value to wildlife and wildlife reproduction, and shall provide for the conservation and maintenance of the plant communities.

4. General Plan Policy 7.1.2 encourages the protection of limited or threatened plant communities through dedications of permanent conservation easements and other appropriate means.

5. The Pine Canyon Creek Greenway should be extended up Pine Canyon Road to the end of this Land Use Change area.

Energy Conservation

Impacts:

The increased number of residential units will consume more energy than the existing number of units. Domestic energy consumption is primarily due to transportation, heating and cooling, and household appliances.

Mitigation Measures:

1. The County should encourage the use of passive and active solar energy systems.

Air Quality

Impacts:

Air quality in the Canyon and the air basin will be degraded, primarily due to auto emissions. AMBAG estimates home based emissions from the projected buildout of this portion of Pine Canyon will be:

Carbon Monoxide	31 tons/year
Hydrocarbons	3 tons/year
Nitrogen Oxides	1 tons/year

Dust and exhausts from heavy equipment will degrade localized air quality during construction projects.

Mitigation Measures:

1. The County should encourage alternative transportation routes such as bicycle paths from Pine Canyon to King City to reduce the number of vehicle trips in the Canyon.

2. The Pine Canyon Creek Greenway should be extended up the Canyon to provide access to residential areas.

3. The County should encourage Monterey Salinas Transit to extend service to King City and Pine Canyon.

Water Supply and Quality

Environmental Setting:

As Figure EIR-2 illustrates, a portion of the Land Use Change Area is served by the Little Bear Water Company. The Little Bear service main currently ends at the lower boundary of the Land Use Change Area. Groundwater quality in the upper Canyon is generally of poor quality. No sewage treatment services are currently available in this area of Pine Canyon.

Impacts:

Until Little Bear extends service farther up the Canyon, and for those areas outside the service area, water supplies will have to be drawn from groundwater by private suppliers or homeowners.

If Little Bear does expand service to the Land Use Change Area the new consumption will incrementally exacerbate the overdraft of the Salinas Valley Groundwater Basin.

Steep slopes and high groundwater will increase the risk of septic system leachate contaminating surface or groundwater.

Mitigation Measures:

see Mitigation Measures, Water Supply and Quality, Land Use Change #8

Public Services and Facilities

Fire Protection -

Environmental Setting:

See Land Use Change #8

Impacts:

Additional residential development in the Canyon will increase the possibility of an accidental fire. New development will also place a greater demand on the existing level of service.

Mitigation Measures:

see Mitigation Measures, Fire Protection, Land Use Change #8

Police Protection -

See Land Use Change #8

Schools -

Setting:

See Land Use Change #8

Impacts:

Additional residential development will generate additional students. Dr. Tom Fulton, King City Union District Superintendent, estimates that new residential development could generate as much as 1.5 to 2 students per household, depending on housing type, household income, and other variables. This could result in 147 to 196 additional students should maximum buildout occur (Pers. Comm. 11/25/86). However, because actual buildout will probably be less than the maximum possible, the actual number of additional students will probably also be less. King City Joint Union High School District Superintendent Floyd Siders estimates that approximately .15 high school students will be generated per household, which would yield approximately 15 additional high school students (Pers. Comm. 11/26/86). New residential development will also generate approximately 10 additional students who will require special educational facilities (Pers. Comm., Robert Brown, 11/25/86).

Mitigation Measures:

1. School districts may impose developer fees on new residential construction to finance the construction and rehabilitation of temporary and permanent facilities. (Govt. Code Sec. 53081.)

Solid Wastes -

See Land Use Change #8

Archaeological/Historic Resources

Environmental Setting:

Land Use Change #9 lies within a highly sensitive archaeological zone. The Robbers Roost historic site lies within the Land Use Change area. The Indian Painted Cave is also within the same vicinity.

Impacts:

Construction and development activities could result in the destruction or degradation of historic cultural resources. New residents in the area may increase the number of visitors to archaeological sites which in turn may result in the degradation of these sites.

Mitigation Measures:

See Land Use Change #8

LAND USE CHANGE #10

Description:

Land Use Change #10 transfers approximately 54.6 acres of Farmlands southwest of King City to Rural Grazing - 10 acre minimum parcel size. The site is currently use for limited agriculture and one single family residence. The Land Use Change will allow 4 additional residences.

Hydrology/Soils

Environmental Setting:

Relatively steep slopes, soils with slow percolation rates, and an absence of any natural drainage courses characterize the Land Use Change area. The western portion of the area is also subject to high groundwater levels. Soils occurring in the Land Use Change area include:

Lockwood loam	2 to 9 percent slopes
Lockwood shaly loam	9 to 15 percent slopes
Garey sandy loam	2 to 9 percent slopes
Xerorthents, loamy	slopes vary

Water supplies are drawn from on site groundwater wells. Water quality is generally good. Wastewater is treated on site with septic systems.

Impacts:

Slow percolation rates, steep slopes, and high groundwater in certain portions of the Land Use Change area increase the likelihood of groundwater contamination from septic system leachates.

Mitigation Measures:

1. Septic system permits shall be subject to the conditions established by the County Department of Environmental Health.

Land Use Change # 11

Description:

Land Use Change #11 designates all existing Low Density Residential areas of San Lucas (approximately 15.5 acres) to High Density Residential - 6 units per acre. Most of this area is currently undeveloped. There are currently 24 residential units in this area. The Land Use Change could result in about 124 additional units at buildout.

Hydrology/Soils

Environmental Setting:

San Lucas is located on a bench above and to the east of the Salinas River Floodway. Much of the area is characterized by slopes of 10 to 30 percent. A small area along the eastern perimeter of the community has slopes which exceed 30

percent. The soils occurring in the area share the characteristic of slow percolation. There are no naturally occurring drainage courses, although drainage water typically runs down the slopes to the west to the Salinas River. San Lucas is located above the Upper Valley Sub-basin of the Salinas Valley groundwater basin.

Impacts:

New high density residential development will result in stormwater runoff. This runoff will be exacerbated by the slow percolation characteristics of the soil. Improperly handled runoff may erode downhill soils and damage farmlands located adjacent to the Salinas River.

Mitigation Measures:

1. Pursuant to General Plan Policy 3.2.2, lands having a prevailing slope above 30 percent shall require adequate special erosion control and construction techniques. Erosion control plans shall be required pursuant to the Monterey County Erosion Control Ordinance.

2. Gutters, storm drains, and detention basins (where necessary) should be required as a condition of subdivision approval.

Energy Conservation

Impacts:

The increased number of residential units will consume more energy than the existing number of units. Domestic energy consumption is primarily due to transportation, heating and cooling, and household appliances.

Mitigation Measures:

1. The County should encourage the use of passive and active solar energy systems.

2. Project proposals should be evaluated to provide optimum solar access to all proposed units.

Visual Impacts

Environmental Setting:

San Lucas presently consists of a developed area concentrated on a bench above the Salinas River Floodplain. To the east of the community the foothills of the Gabilan Mountains. The undeveloped residential area addressed in this land use change is located to the east of the existing developed areas of San Lucas at a higher elevation.

Impacts:

The open space hillside will be replaced with High Density Residential development between Julius and Starr Streets. While this area is not designated as being visually sensitive and is not technically a ridgetop, development on

the foothills will be extremely visible to the residents of the existing community.

Mitigation Measures:

see Mitigation Measure #4, Visual Impacts, Land Use Change #4

Air Quality

Impacts:

Additional development will result in localized degradation of air quality, primarily due to vehicle emissions. AMBAG estimates projected buildout of the Land Use Change will result in the following home based emissions:

Carbon Monoxide	27 tons/year
Hydrocarbons	3 tons/year
Nitrogen Oxides	1 tons/year

Dust and exhausts from heavy equipment will degrade localized air quality during construction.

Water Supply and Quality

Environmental Setting:

Water is supplied to the San Lucas area by the San Lucas County Water District. The District draws water from the Upper Valley Sub-basin of the Salinas Valley Basin aquifer. District spokesman B. H. Pryor states that the District will be able to supply new development (Pers. Comm. 1/5/87). Water quality in the Upper Valley Sub-basin varies depending upon location, however quality at the District's pumps is considered good.

Wastewater in San Lucas is currently disposed of with on-site septic system. A study by the County Department of Environmental Health in July of 1984 revealed that 44% of the septic systems in San Lucas had failed. Furthermore, all of the 192 lots in San Lucas are 4 to 6 times smaller than the minimum one acre lot size required for septic systems by the Regional Water Quality Control Board. The Study also concluded that septic systems in San Lucas are exceeding the Regional Board's allowable concentration of nitrogen loading to groundwater (Septic System Survey of San Lucas, Walter Wong, Monterey County Department of Environmental Health). Groundwater nitrate concentration studies in the Planning Area have shown nitrate concentrations north of San Lucas (downstream Salinas River) to be very high.

The County Water District in San Lucas, in conjunction with the County Office of Economic Development, is currently in the process of applying for Federal and State grant funds to sewer the existing community. Grant funding for sewage treatment facilities is only available to sewer existing lots of record.

Impacts:

New residential development will require approximately 51 acre feet of water per year. (124 units X .411 ac.ft./yr.).

High Density Residential development will require centralized sewage treatment facilities. At 200 gallons per unit per day, additional development allowed by this land use change could generate 24,800 gallons of sewage per day. The sewage treatment facility grant proposals were written for the existing lots of record at a Low Density level of development. The wastewater generated by the 124 additional units possible under the High Density Residential designation may exceed the capacity of the proposed treatment facility. Expansion of any future treatment facility may be necessary for high density residential development to occur.

Mitigation Measures:

1. The County should continue its efforts to bring a sewage treatment facility to San Lucas.

2. All existing lots of record will have to be given an equitable share of the available capacity of the proposed sewage treatment facility. Should expansion of the treatment facility be required for high density levels of development, the cost of expanding the facility should be borne equitably among future recipients of expanded capacity.

3. Pursuant to General Plan Policies 21.3.1 and 21.3.3, the County shall support sewage treatment projects that reduce surface and groundwater pollution. Development shall not be permitted without proof of an adequate waste disposal system. The County should therefore continue its efforts to bring a sewage treatment facility to San Lucas.

Transportation

Environmental Setting:

San Lucas is located near the junction of Highway 101 and State Route 198. Roads in San Lucas are two lane county roads that are essentially rural in character because of minimal improvements.

Impacts:

AMBAG estimates the additional High Density Residential development will result in 834 additional vehicle trips per day. The County Department of Public Works states that while these additional vehicle trips will cause a major increase in traffic on area roads, the Level of Service will probably remain acceptable because of the current low traffic volumes.

Mitigation Measures:

1. General Plan Policy 38.1.5 requires that adequate traffic capacity shall be a criterion for development consideration. The County Department of Public Works will review development proposals. Specific developments may require improvements to existing roadways.

2. Pursuant to General Plan Policy 38.1.4, transportation alternatives such as bicycles, car pools, transit, and compact vehicles shall be encouraged for new development.

3. Rights-of-way needed for new roads or expansion of existing roads shall be planned for; land uses that would preclude the timely development of such rights-of-way shall be prohibited (General Plan Policy 39.1.3).

4. Pursuant to General Plan Policies 39.3.1 and 39.3.2, the County shall monitor traffic on County roads, identify traffic problem areas, and continue its efforts to improve congested and critical locations.

Public Services

Water and Sewer - see Water Supply and Quality

Fire Protection -

Setting:

While the community of San Lucas is considered an urban area with regard to fire hazard, meaning fire hazards are slight, the surrounding foothills are designated as a High Fire Hazard zone. Furthermore, no organized structural fire protection exists in San Lucas. The California Department of Forestry may respond to a fire in the area but is under no obligation to do so.

Impacts:

Additional residential development will increase the possibility of an accidental fire. New development will also place a greater demand on the existing level of service. Fire insurance rates in San Lucas will be at a maximum until such time as structural fire protection is provided.

Mitigation Measures:

see Mitigation Measures, Fire Protection, Land Use Change #4

Police Protection -

Setting:

San Lucas is located in Sheriff's Patrol Beat XI, which is large, sparsely populated, and has relatively long response times. The Beat is covered by one deputy on patrol at all times.

Impacts:

The land use change may add a significant number of new residences to Patrol Beat XI. Residents in this patrol beat will have to compete with a larger number of homes for police protection.

Mitigation Measures:

1. New development should incorporate crime preventing design features which can be recommended by the Sheriff's Department.

2. Police protection services should be increased in Patrol Beat XI.

Schools-

Environmental Setting:

The community of San Lucas lies within the San Lucas Elementary School and King City Joint Union High School Districts. The San Lucas Elementary District is currently exceeding capacity by 30 students (AMBAG, Systems Capacity Analysis, June 1986; Pers. Comm. 1/6/87). King City Union High School District is expected to meet enrollments until the mid 1990s (AMBAG, Systems Capacity Analysis, 1986).

Impacts:

Stanley Stark of the San Lucas Elementary District estimates that about 2 students per household will be generated by new development, depending on housing type, household income, and other variables. This could result in 248 additional elementary students at maximum buildout (Pers. Comm. 1/7/87). King City Joint Union High School District Superintendent Floyd Siders estimates that approximately .15 high school students will be generated per household, which would yield approximately 186 additional high school students (Pers. Comm. 11/26/86). New residential development will generate approximately 43 students who will require special educational facilities (Pers. Comm., Robert Brown, 11/25/86).

Mitigation Measures:

see Mitigation Measures under Schools, Land Use Change #2.

Archaeological/Historic Resources

Environmental Setting:

Although the community of San Lucas is located in a Low Sensitivity Zone on the Planning Area Cultural Resources Map, several historic sites occur in or around the community (see Table 2 and Figure 4 of Area Plan).

Impacts:

The High Density land use designation may provide incentive to property owners or investors to replace existing historical structures with those that may be more

appropriate to a more profitable High Density use.

Construction and development activities could result in the destruction or degradation of historic cultural resources. Additional residents in the area may result in increased visitors to or use of the sites which may in turn result in degradation or loss of these historic resources.

Mitigation Measures:

1. Pursuant to General Plan Policy 12.1.6, reasonable mitigation procedures shall be required prior to project approval where development could adversely affect archaeological resources.

2. The historic sites listed in Table 2 should be placed in the Historic Preservation District pursuant to the County Historic Preservation Ordinance (Zoning Ordinance Chapter 20.84) as soon as said ordinance is adopted.

LAND USE CHANGE #12

Description:

Land Use Change #12 designates approximately 74.2 acres to the north and east of the existing community as Medium Density Residential (1 to 5 units per acre). The area extends 850 feet north of Starr Street to Highway 198, including the area bounded by Mary Street, Highway 198, and Main Street (see Figure 14 b). Approximately 250 residential units are possible under the Medium Density Residential Designation. The land use change area is currently undeveloped and used as grazing land.

Hydrology/Soils

Environmental Setting:

Land Use Change #12 is located in an area with generally moderate slopes which become severe (exceeding 30 %) in several areas. The soils occurring in the area share the characteristic of slow percolation. There are no naturally occurring drainage courses, although drainage water typically runs down the slopes west to the Salinas River. San Lucas is located above the Upper Valley Sub-basin of the Salinas Valley groundwater basin.

Impacts:

New medium density residential development will result in stormwater runoff. This runoff will be exacerbated by the slow percolation characteristics of the soil. Improperly handled runoff may erode downhill soils, flood, or damage downhill development.

Mitigation Measures:

1. Pursuant to General Plan Policy 3.2.2, lands having a

prevailing slope above 30 percent shall require adequate special erosion control and construction techniques. Erosion control plans shall be required pursuant to the Monterey County Erosion Control Ordinance.

2. Gutters, storm drains, and detention basins (where necessary) shall be required as a condition of subdivision approval.

Energy Conservation

Impacts:

The residential units allowed by the Medium Density Land Use Designation will result in a substantial increase in energy use compared to the existing land use. Domestic energy consumption is primarily due to transportation, heating and cooling, and household appliances.

Mitigation Measures:

see Mitigation Measures, Land Use Change #11

Visual Impacts

Environmental Setting:

see Visual Impacts, Land Use Change #11

Impacts:

The open space hillside will be replaced with medium Density Residential development. While this area is not designated as being visually sensitive and is not technically a ridgetop, development on the foothills will be extremely visible to the residents of the existing community as well as travelers on Highways 198 and 101. The existing rural landscape will be transformed to a relatively urban landscape.

Mitigation Measures:

see Mitigation Measure #4, Visual Impacts -
Land Use Change #4

Air Quality

Impacts:

Additional development will result in localized degradation of air quality, primarily due to vehicle emissions. AMBAG estimates projected buildout of the Land Use Change will result in the following home based emissions:

Carbon Monoxide	81 tons/year
Hydrocarbons	9 tons/year
Nitrogen Oxides	4 tons/year

Dust and exhausts from heavy equipment will degrade localized air quality during construction.

Mitigation Measures:

see Mitigation Measures, Air Quality, Land Use Change #8

Water Supply and Quality

Environmental Setting:

See Land Use Change #11

Impacts:

New residential development will require approximately 102 acre feet of water per year (247 units X .411 ac.ft./yr.).

At 5 units per acre, lot sizes will be 5 times smaller than the one acre minimum require by the Regional Water Quality Control Board for on site septic systems. At 200 gals per unit per day, buildout of Land Use Change #12 will generate 49,400 gallons of sewage per day. Grant funding is available for existing lots of record within current County water District boundaries. Medium Density development will therefore require expansion of the facility.

Mitigation Measures:

1. The County should continue its efforts to bring a sewage treatment facility to San Lucas.

2. New development shall be required to provide the necessary expansion of sewage treatment facilities to accommodate the demand created.

Noise

Environmental Setting:

Existing loudness contours in the Central Salinas Valley indicate the following noise levels and locations near the Land Use Change Area.

State Route 198 at San Lucas East - at 50 feet	58 dBA
Junction Route 101 and Route 198 East - at 50 feet	71.1 dBA

The County General Plan establishes a noise level of 50 - 60 dBA as "Normally Acceptable".

Impacts:

Residential development adjacent to Route 198 may be subject to Unacceptable or Conditionally Acceptable noise levels as defined on page 87 of the County General Plan.

Mitigation Measures:

Pursuant to General Plan Policy 22.2.1, development immediately adjacent to Highway 198 which may be in the Conditionally Acceptable range should be undertaken only after a detailed analysis of noise reduction requirements is made. Special construction techniques shall be utilized where necessary.

Transportation

Environmental Setting:
see Land Use Change #11

Impacts:
The area specifically addressed by Land Use Change #12 is currently undeveloped. New streets will be required to serve new residential parcels. AMBAG estimates that the estimated number of residential units allowable will result in 2,499 vehicle trips per day. The County Department of Public Works states that while these additional vehicle trips will cause a major increase in traffic on area roads, the Level of Service will probably remain acceptable because of the current low traffic volumes.

Mitigation Measures:
see Mitigation Measures, Traffic Impacts, Land Use Change #11

Public Services

Water and Sewer - see Water Supply and Quality

Fire Protection -
see Land Use Change #11

Police Protection -
see Land Use Change #11

Schools-

Environmental Setting:
see Environmental Setting, Schools, Land Use Change #11

Impacts:
Stanley Stark of the San Lucas Elementary District estimates that about 2 students per household will be generated by new development, depending on housing type, household income, and other variables. This could result in 500 additional students at maximum buildout (Pers. Comm. 1/7/87). King City Joint Union High School District Superintendent Floyd Siders estimates that approximately .15 high school students will be generated per household, which would yield approximately 375 additional high school students (Pers. Comm. 11/26/86). New residential development will also generate approximately 87 students who will require special educational facilities (Pers. Comm., Robert Brown, 11/25/86).

Mitigation Measures:
see Mitigation Measures under Schools, Land Use Change #2.

Archaeological/Historic Resources

see Land Use Change #11

LAND USE CHANGE 13

Description:
Land Use Change #13 designates approximately 1.3 acres along Main Street in San Lucas, from Anita Street to Rosa Street, back to the first alley, as Commercial. Several home and businesses currently exist at this location. Sixteen legal lots of record exist in nine separate ownerships. Based upon a 2,000 square foot minimum, approximately 20 commercial building sites could be possible.

Energy Conservation

Impacts:
Intensified Commercial use of the Land Use Change Area will result in an increase in energy consumption, primarily for lighting.

Mitigation Measures:
None

Water Supply and Quality

Environmental Setting:
see Environmental Setting, Water Supply and Quality, Land Use Change #11

Impacts:
Typical water consumption for commercial uses varies depending upon the specific use, however 400 gallons per day per toilet room is a generally accepted standard. Based upon this standard and arbitrarily assuming eventual buildout of one commercial establishment per existing lot of record (with one toilet room per establishment), 6,400 gallons per day of water (7 acre feet) could be required for the Commercial area. Correspondingly, the same amount of wastewater should be expected.

On-site wastewater treatment will not be possible. The proposed sewage treatment facility may need to be expanded to accommodate wastewater flows generated by the commercial uses, depending upon the capacity of the facility.

Mitigation Measures:
see Mitigation Measures, Water Supply and Quality, Land Use Change #11,

Archaeological/Historic Resources

Environmental Setting:
Although the community of San Lucas is located in a Low Sensitivity Zone on the Planning Area Cultural Resources Map, several historic sites occur in or around the community. In this land use change area is the Bunte Store, built in

1886 and Saint Luke's Church, built in 1903.

Impacts:

The Commercial land use designation may provide incentive to property owners or investors to replance existing historical structures with those that may be more appropriate to the more profitable commercial use.

Construction and development activities could result in the destruction or degradation of historic cultural resources. Additional residents in the area may result in increased visitors to or use of the sites which may in turn result in degradation or loss of these historic resources.

Mitigation Measures:

see Mitigations Measures, Archaeological/Historic Resources, Land Use Change #11

ENVIRONMENTAL EVALUATION

Cumulative Impacts

The Central Salinas Valley Area Plan, along with the County General Plan, is intended to preside over a period of fifteen to twenty years. Implementation and development pursuant to the policies and land use designation established in the Area Plan will occur over time. The environmental impacts resulting from implementation of the Area Plan will therefore be cumulative in nature. New development will exacerbate or accentuate problems affecting the quality of life in the Planning Area.

This cumulative impact assessment is based upon the estimated maximum buildout or worst case scenario, however policies contained in the Area Plan and County General Plan, as well as environmental constraints, will in many cases limit new development to levels below those used in this assessment. The extent to which development will be limited cannot be determined at this time. Mitigation of these impacts will occur through implementation of various policies contained in the Area Plan and County General Plan, as well various County Ordinances. Since the mitigation measures occur in the same context as the actions that create the impacts, (i.e. Area Plan and General Plan Policies and County Ordinances), they are also cumulative in nature. Policies that mitigate specific impacts are also mitigations to cumulative impacts.

Geology and Soils

Slope and soil types vary considerably throughout the Planning Area. Geologic hazards also vary depending upon location. Several potentially active faults and areas of unstable alluvium occur in the Planning Area (see Area Plan Part I, p. 20, Figure 6).

The land use designations of the Area Plan will allow significant levels of new development and increased densities in portions of the Planning Area which in many cases are characterized by moderate to high geologic hazards, steep slopes, and erodable soils. New development will in many cases require grading and result in increases in impermeable surfaces, which, in turn will result in increased runoff. Grading practices and increased runoff may result in soil erosion. New development in the Planning Area, as well as the expansion of Planning Area cities onto prime farmlands, may result in agricultural operations attempting to cultivate lands with characteristics, such as slope, that may increase the likelihood of soil erosion through improper soil management.

The cumulative effects of development in seismic hazard zones may result in risks to the health and safety of Planning Area residents. New development in hazard areas may be subject to liquefaction, ground shaking, or slope failure. Potentially

active fault zones are capable of producing ground shaking events that could result in extensive structural damage and risk to human life.

Erosion impacts and seismic hazards may be substantially mitigated through implementation of County General Plan Policies 3.1.1, 3.1.3, 3.2.2, 15.1.4, 15.1.8, 15.1.10, 15.1.11, Area Plan Policies 35.1.3 and 35.1.4, and the County Erosion Control Ordinance. These regulations require that special studies and procedures be applied to mitigate potential erosion problems and seismic hazards.

Hydrology

Many minor drainage swales and courses occur throughout the Planning Area, but particularly in the canyons where significant residential growth is allowed by the Area Plan. Certain areas along the Salinas River and in some of the Canyons are also within the 100 year floodplain.

Significant cumulative impacts to drainage courses and surface water quality may occur by erosion and sedimentation caused by the increase in impermeable surfaces and subsequent runoff. Grading, construction, and landscaping will expose soil surfaces. Larger areas of impermeable surfaces will cause higher volumes of surface water runoff which will have the potential to cause soil erosion. Eroding soils may be carried by runoff into natural drainage courses resulting in sedimentation of these drainage courses. Particular drainage courses which may be affected are Pine Canyon Creek, Reliz Creek, the Arroyo Seco River, Chualar Creek, and the Salinas River. Drainage courses choked by sedimentation may breach their banks or change their course and cause significant damage to adjacent areas. Developments locating within the 100 year floodplain may risk flood damage if structures are not properly sited and designed.

As areas of impermeable surfaces increase the area available for groundwater recharge decreases. Development in the Canyons will result in a loss of some watershed areas. Because of the existing groundwater overdraft, recharge of the groundwater basins must be protected.

Area Plan Policy 16.2.1.1, General Plan Policies 5.1.2, 5.2.1, 5.2.2, and the County floodplain and Erosion Ordinances regulate development within the floodplain and along watercourses and will mitigate significant impacts to floodways. General Plan Policies 16.1.1, 16.1.2, 16.2.3, 16.2.4, 16.2.5, 16.2.6, and 16.2.7 establish policies the creation of river management plans and for the protection of developments located within the floodplain or near drainage courses. General Plan Policies 16.3.1, 16.3.2, 16.4.2 promote public education programs to increase the awareness of flood and erosion hazards.

General Plan Policies 6.1.1 and 6.1.2 require ground water usage to be carefully managed and water conservation measures to be

encouraged. Area Plan Policy 5.1.2.1 requires development to maintain recharge capabilities on affected parcels. General Plan Policy 6.2.1 states that the County shall pursue development of suitable water supplies.

Vegetation and Wildlife

Several rare and endangered species of plants and animals occur in the Central Salinas Valley. Hickmans Checker Mallow and Arroyo Seco Bush Mallow, as well as the San Joaquin Kit Fox and the Southern Bald Eagle are examples. In addition to these plants and animals the Salinas Valley is the native habitat to several species of oak trees. A lack of regeneration for several species of oaks has been the subject of recent concern among botanists and biologists. An inventory of environmentally sensitive habitats does not exist for the Planning Area. However the California Department of Fish and Game considers all riparian corridors to be Areas of Special Biological Importance.

As development occurs or intensifies on vacant lands and sparsely populated rural areas, particularly the canyons, plant and animal habitats and open space will be lost. Loss of habitat will result in increased competition for existing habitats and food sources. Species unable to compete successfully may abandon the Planning Area while food and forage, including the oak seedlings, may become more scarce. Development in the canyons along the creeks may disrupt riparian habitats.

Mitigation of potentially adverse impacts upon the Planning Area's biotic community is possible through implementation of General Plan Policies 7.1.1, 9.1.1, and 9.1.2 which require development to provide for conservation and maintenance of areas with a particular value to wildlife and plant communities. Area Plan Policy 11.1.6 states that the County should identify environmentally sensitive habitats in the Planning Area. These studies should be initiated as soon as possible with priority given to those areas that will receive development under this Area Plan. Appropriate areas should be designated as environmentally sensitive as soon as possible.

General Plan Policy 16.2.9, Area Plan Policy 16.2.2.1, and the County Flood and Erosion ordinances will mitigate the impact of development on riparian areas. General Plan Policies 9.2.1 direct land uses that will affect water quality to be managed to assure clean and productive habitats and General Plan Policy 9.2.2 requires projects that will affect inland waterways to be referred to appropriate agencies for review and permits.

Visual Impacts

A variety of visual forms, colors, and textures characterize the Central Salinas Valley. The man-made landscape of croplands dominate the Valley floor. This landscape is a pronounced contrast to the texture and color of the mountains that flank the Valley. Occasional farmhouses, agricultural facilities, and urban

centers also provide contrast to the open spaces of the croplands. Croplands, farmhouses, and agricultural facilities blend into an agreeable and proportionate arrangement of form, line, color, and texture. The grassland foothills turning into oak woodlands complement this sense of harmony. The visual impression of much of the Valley and the canyons is of a rural, sometimes rustic countryside. The major highway and urban centers along the Valley floor are incongruous with this harmony, however their impact is softened by the substantially modified nature of the valley floor.

The Visual Sensitivity Map of the Area Plan (Figure 5) reflects the visual characteristics of the Planning Area by classifying the foothills and canyons as Sensitive or Highly Sensitive Areas. Four County roads have been proposed as Scenic Routes.

New development as well as intensifications of existing land uses will result in a loss of open-space and may impose inharmonious elements onto the visual landscapes in which they occur.

The canyons and hillsides will be especially susceptible to scenic degradation because most of these areas are currently undeveloped or in a relatively natural state. Chualar Canyon, Reliz Canyon, and the upper portions of Pine Canyon are such areas which may be affected. Intensification of development in the Valley will degrade the rural landscape and create a more suburban/urban impression.

Much of the hillside areas and the canyons are classified as Visually Sensitive or Highly Sensitive. This invokes several policies from both the Area Plan and the County General Plan. Open Space and Conservation policies also apply in some of the areas to be affected.

Area Plan Policy 26.1.6.1 requires design review of landscaping, building design, and siting of development proposed in Sensitive or Highly Sensitive areas shown on the Planning Area Visual Sensitivity Map. General Plan Policy 7.2.1 requires that landowners and developers to be encouraged to preserve the integrity of existing terrain and natural vegetation in visually sensitive areas. General Plan Objective 16.1 requires aesthetic considerations to be made a part of the proposed Salinas River Basin Management Plan. General Plan Policies 26.1.6 and 26.1.9 encourage development which preserves the County's scenic qualities and prohibit ridgeline development unless findings can be made that development will not create an adverse visual impact.

General Plan Goal 51 states the County's goal to preserve natural scenic resources by establishing a comprehensive regional parks and trails system. Accordingly, the Pine Canyon Greenway should be expanded further up Pine Canyon. Other greenway or trail systems can be established. Pursuant to General Plan Policy 34.1.7, the County shall support land trusts and conservation organizations to receive by donation or purchase development

rights on any lands to be preserved as open space.

General Plan Objective 56.2 and General Plan Policies 56.2.1 and 56.2.2 require utility lines to be placed underground to mitigate their visual impacts.

Noise

Comprehensive background noise level data does not exist for the entire Planning Area. Available loudness contours appear on Table 8 of the Area Plan. Generally, because of rural development patterns, noise levels in most of the Planning Area are probably within the acceptable limits established on Table 6 (p. 87) of the County General Plan. Exceptions are areas located adjacent to highways and railways, and areas where heavy farm equipment is frequently used.

The Area Plan allows for the expansion of commercial and residential land uses. New development will cumulatively contribute to an increase in ambient noise levels. The impacts resulting from the increased noise levels will depend upon the specific types and intensity of development that occurs. Generally, cumulative impacts to noise receptors will occur where those receptors are located near streets or access roads that are expected to experience significant increases in traffic.

The primary noise source that will result from commercial and residential land uses will be vehicle traffic. Commercial uses will increase noise levels on local streets and traffic corridors that access the commercial developments. Streets in Chualar and San Lucas, as well as Paraiso Springs Road, will probably experience increased vehicle traffic.

New and intensified residential development will also result in increased vehicle traffic on collector and arterial roads that will serve the residential areas. Pine Canyon Road is expected to experience a significant increase in vehicle traffic resulting from Land Use Changes 7, 8, and 9, as well as the recently approved Pine Meadows Estates subdivision. Residences located along existing rural roads that will become collector roads for new development may be adversely affected by traffic increases. Proposed residential development located near existing highways and railways may find the noise generated by these sources to be unacceptable.

No new industrial or major point sources are proposed by the Area Plan.

Several policies in the County General Plan will mitigate potential noise impacts by insuring that compatible land uses are located adjacent to each other and by requiring noise analyses and special design and construction techniques to reduce noise levels. The following General Plan policies address noise hazards:

General Plan Policy 22.2.1 requires that new development conform to the noise standards established on Table 6 (p. 87) on the General Plan while Policy 22.2.2 requires appropriate standards of soundproofing as specified in the building code. Pursuant to General Plan Policy 22.3.3, the County shall work with the State Department of Transportation to mitigate the effects of highway noise of all new highway improvements. Pursuant to General Plan Policy 38.1.2, the effects of road and highway noise shall be mitigated to comply with all noise control policies of the General Plan. According to General Plan Policy 48.1.1, the County shall conduct inspections related to noise hazards.

Transportation

New development allowed by the Area Plan will cumulatively increase traffic volumes throughout the Planning Area. Several roads will experience significant adverse impacts. The total volume and distribution of traffic generated by new commercial and residential development cannot be estimated because of variation in trip generation rates among commercial uses and the problem of double counting residential-commercial trips. However, vehicle trips generated by maximum residential buildout (estimated with cross slope as the only constraint) is estimated to be 15,256 trips per day. Vehicle trip estimates are uncertain and are intended to provide only a general idea of future conditions.

The impacts of these home-based vehicle trips will, of course, be experienced primarily near the land use change areas in which growth is proposed. The traffic corridors that serve these areas will be most severely impacted. County roads expected to be most affected are those with levels of service already less than optimum and roads which are currently capable of carrying only very low volumes of traffic. Residential or domestic vehicle travel may conflict with farm equipment on some roads.

Pine Canyon Road, currently at Level of Service C and D, depending on location (see Environmental Setting, Land Use Change #7), is estimated to experience an increase of 9,883 vehicle trips per day resulting from the three land use changes proposed in the Canyon (Land Use Changes 7, 8, and 9). This could reduce the Level of Service on Pine Canyon to LOS E. Roads serving Reliz Canyon, San Lucas, and Chualar Canyon are also expected to be affected (see individual land use change impacts). The Area Plan also designates four roads in the Planning Area as proposed scenic routes: Highways 146 and 25, and Arroyo Seco Road to Carmel Valley Road and Bitterwater Road from King City to the eastern border of the Planning Area.

The Monterey County Transportation Plan and the County General Plan contain specific programs and policies which will mitigate the potential impacts discussed above. Road and highway improvements contained in the County Transportation Plan are discussed on pages 56 and 57 of Part I of the Area Plan. Other improvements may become necessary to maintain acceptable levels

of service. General Plan Policies 37.1.1 and 37.1.2 require the County Transportation Commission to coordinate the provisions of the Central Salinas Valley Area Plan with the Monterey County Transportation Plan and other regional transportation plans. According to General Plan Policy 37.2.1 and the County Transportation Plan, traffic generated by new development shall not be allowed to exceed Level of Service C for existing roads. New development will be required to provide any necessary improvements. General Plan Policy 38.1.5 also requires that adequate traffic capacity shall be a criterion for development consideration. General Plan Policies 39.1.3 and 39.1.4 prohibit development from precluding the timely implementation of right-of-ways and require the planning of such right-of-ways. Pursuant to General Plan Policies 39.3.1, 39.3.2, and 39.4.1, the County shall monitor traffic flow and improve congestion with priority given to arterials that carry agricultural goods.

Air Quality

The Central Salinas Valley is part of the North Coast Air Basin, which also includes Santa Cruz and San Benito Counties. Air quality in the Salinas Valley currently meets all air quality standards with the exception of ozone (see discussion of air quality on page 30 of Part I of the Area Plan).

New development in the Planning Area will continue to degrade air quality in the Planning Area and the North Coast Air Basin. The Central Salinas Valley Area Plan proposed no new industrial land use designations which would result in discrete point sources of air pollution. Rather the Area Plan focuses on residential and limited commercial land uses. The major source of increased air pollution from these land uses will be non-point sources, primarily vehicular traffic. Estimation of the total volume of air pollutants generated from these sources cannot be accurately estimated because of the uncertainty in estimating future traffic levels and average trip lengths. AMBAG has estimated the home based emissions for the projected buildout of the residential land use changes contained in the plan as follows:

CARBON MONOXIDE	490 Tons/Year
HYDROCARBONS	51 Tons/Year
NITROGEN OXIDES	22 Tons/Year

As vehicle emissions are a key component in ozone formation, the increase in these emissions could contribute to regional ozone production and exacerbate the non-attainment of air quality standards in the Planning Area and Air Basin. However ozone formation is dependent upon other atmospheric conditions which could either work for or against ozone production.

The Monterey County General Plan and the 1982 Air Quality Plan for the Monterey Bay Region address reducing emissions from non-point and mobile source of air pollution as well as recommend actions to improve local air quality.

The Air Pollution Control District recommends several programs to reduce vehicle emissions including: 1) a motor vehicle inspection and maintenance program; 2) improved public transit; and 3) traffic flow improvements. AMBAG's Short Range Transit Plan contains recommendations on alternative modes of transportation to reduce dependence on private automobiles.

Monterey County General Plan Policy 20.1.2 also supports the use of alternative modes of transportation in its land use plans. According to General Plan Policy 38.1.1, the County shall pursue reducing air pollution from transportation sources. Pursuant 20.2.2, 20.2.3, and 20.2.5, the County shall support the air quality monitoring strategies, and enforcement programs of the Monterey Bay Unified Air Pollution District. General Plan Policy 20.1.3 recommends implementing a roadside tree program and encourages the maintenance of vegetated and forested areas for their air purifying functions.

Water Supply and Quality

Most of the water in the Planning Area is pumped from the Salinas Groundwater Basin. Exceptions will include development in Chualar Canyon and Reliz Canyon and the Paraiso Hot Springs area. However, water from the Arroyo Seco River which will provide for development in Reliz Canyon eventually recharges the lower portions of the Salinas Groundwater Basin and perhaps should not be considered as separate. This basin is in a condition of overdraft (see Area Plan Part I, Water Resources, p. 7).

Variation of demand among commercial uses and actual residential buildout make any estimate of demand uncertain, however the increased demand on the Salinas Groundwater Basin resulting from maximum buildout of the land use designations proposed by the Area Plan is estimated to be approximately 640 acre feet per year.

Water quality in the Planning Area varies depending upon location. As Table 6 on page 32 of the Area Plan indicates, nitrates, salts, and trace elements are all present in Central Salinas Valley Groundwater. Nitrate concentrations above the 45mg/L limit have been found in several monitoring wells and have already closed some municipal wells. Table 5 on page 31 of the Area Plan shows that by the year 2000 the average projected nitrate concentrations in the Planning Area's groundwater will exceed the safety limits. The primary sources of groundwater contaminants is agricultural and septic system leachates.

New development may result in increased surface and groundwater pollution. Expansion of residential and commercial land uses will generate a variety of urban pollutants, including: silt and sand, organic matter, domestic pesticides and fertilizers, fuels, grease, and oils. Septic systems may leak nitrates. These pollutants may be carried by runoff into surface water bodies. Pollutants may also make their way into groundwater supplies. Pathogens contained in septic system leachate may also

contaminate water bodies where water tables and runoff volumes are high.

General Plan Policy 15.1.13 reduces the probability of contamination from septic leachfields and soil erosion by requiring that leachfields and drainage be directed away from unstable slopes. General Plan Policies 6.1.1 and 6.1.2 require ground water usage to be carefully managed and water conservation measures to be encouraged. Area Plan Policy 6.1.3 requires that new development shall not be approved without adequate water supplies. Area Plan Policy 5.1.2.1 requires development to maintain recharge capabilities on affected parcels. General Plan Policy 6.2.1 states that the County shall pursue development of suitable water supplies.

General Plan Policies 21.1.5, 21.1.7, 21.1.9, 21.2.1, 21.2.2, and 21.3.3 direct the County to monitor water quality and regulate those uses which may adversely affect water quality. Area Plan Policy 21.1.4.2 encourages Planning Area farmers to participate in a program to manage irrigation run-off to reduce the quantity of herbicides, fertilizers, and pesticides that might adversely affect water resources. Use of septic systems will require approval to the County Department of Environmental Health.

Public Services

The cumulative demand for public services and facilities will increase incrementally as development occurs in the Planning Area. Cumulative impacts to sewage treatment facilities (where applicable) police and fire protection services will be most significant. The issue with water supplies concern long-term yields rather than delivery systems (discussed under Water Supply and Quality above). Other public services that may be affected by implementing the Area Plan are schools, recreation facilities, and solid waste disposal.

Several of the areas addressed in the Area Plan are within the service area of various sewer districts. These areas include Chualar and Pine Canyon, and possibly in the near future San Lucas. All other areas addressed in the Area Plan must rely on on-site treatment or package treatment technologies. As Table 17 on page 68 of the Area Plan indicates, only the Chualar County Sanitary District has capacity to accommodate the proposed growth. Both the Little Bear Facility and the proposed facility in San Lucas will have to be expanded to accommodate the projected growth.

General Plan Policy 21.3.1 states that the County should support sewage treatment projects that reduce contamination of surface and groundwaters. Pursuant to General Plan Policy 54.1.3, the County shall study the imposition of a sewage impact fee on all new residential and commercial development to supplement funding for wastewater treatment facilities within the area of respective developments. Pursuant to Policies 21.3.2, 21.3.3 and 21.3.4, no division of land shall be approved without proof that an adequate

waste disposal system can be developed. The number of septic systems that can be developed in an area before groundwater is threatened should be determined. Development should not exceed that number unless approved alternative wastewater systems are provided. County health officials shall encourage the investigation of cost effective, reliable, alternative wastewater disposal methods that are acceptable to the Environmental Health Department.

Police and fire protection services will be cumulatively impacted as well. New residential and commercial development will increase the possibility of crime and accidental fire. Several of the Areas addressed in the Area Plan are located in very high fire hazard areas. The increased number of residents in the Planning Area will result in an incremental decrease in the level of service for all residents. This could adversely affect the health and safety of Central Salinas Valley residents.

Police protection is primarily provided by the Monterey County Sheriff's Department. Duties of the Sheriff's Department within the patrol area include responding to citizen complaints, investigations, arrests, and preserving the peace.

County General Plan Policy 46.2.1 States that the County should support and promote efforts to organize neighborhood and rural crime prevention techniques and conduct residential security surveys and public awareness programs. General Plan Objective 46.3 requires the County to consider adequate levels of police protection and crime investigations for the protection of life and property in reviewing new development proposals.

Fire protection is provided by several fire protection districts located throughout the Planning Area. Figure 13 on page 62 of the Area Plan shows the various district boundaries. The County General Plan contains a variety of objectives and policies that set forth mitigation measures of potential fire hazards. General Plan Policy 17.3.3 will require that all new development not located within 15 minutes response time from a fire station provide on-site fire protection systems. Alternatively, General Plan Policy 17.3.6 requires all new development located within 15 minutes response time from a fire station to be required to annex to the appropriate fire district. Pursuant to General Plan Policy 17.3.4, all new development shall be contingent upon the provision of water supplies for fire suppression. Water systems constructed shall be designed to the standards shown in Table 2 on page 62 of the County General Plan (Policy 17.3.5).

The county General Plan also requires that every building, structure, and/or development shall be constructed to meet, at a minimum the requirements specified in the Uniform Building Code (General Plan Policy 17.4.2). All roadways shall conform to the standards established in the County General Plan. Area Plan Policy 46.1.2 requires that emergency access problems be identified and addressed before development is allowed to occur. Fuel modification zones shall be provided where appropriate

pursuant to General Plan Policies 17.4.12 and 17.5.1.

School facilities will also be cumulatively impacted by the new development. Many of the school districts in the Planning Area were identified in AMBAG's Systems Capacity Analysis as currently being over capacity. Using estimates from respective school district personnel, it was possible to approximate the number of students that could be generated from buildout of the proposed land use changes. These estimates, by district, are contained in the following table:

TABLE EIR-4

Projected Students Generated at Buildout

<u>School District</u>	<u>Additional Students</u>
Chualar Union Elementary	168
Gonzales Union Elementary	10
Gonzales Union High School	61
Greenfield Union Elementary	242
King City Joint Union High School	732
King City Union Elementary	2040
San Lucas Elementary	748
Total	4001
Estimated Special Education Students (Approx. 10% of Total)	400

Increasing enrollments may result in larger classroom sizes which in turn may result in less individual attention for each student. It may therefore be necessary to construct new facilities to maintain the quality of education in Planning Area schools. General Plan Policies 47.1.2 and 47.2.1 require the County to assist school districts in reserving sites for future schools near areas of development and, in areas where classrooms are overcrowded, imposing a housing impact fee on all new residential development to fund interim school facilities. California Government Code Section 53081 authorizes school districts to assess developer fees on new development to finance the construction of new facilities as they become necessary. Finally pursuant to General Plan Policy 47.1.3, the County shall encourage coordination between school districts experiencing increasing and declining enrollments to provide for relocation of surplus facilities.

Energy utilities are provided by Pacific Gas and Electric Company. Telephone services are provided by Pacific Telephone. Utility transmission wires are generally located above ground, but are being buried in new construction. No problem is anticipated in providing electricity and telephone services to the land use change areas if the extension of existing lines is

funded by developers.

Natural gas is available to the residents of the four incorporated cities, their adjacent areas, and Chualar. Extension of natural gas lines will probably be limited to areas near the current distribution pipelines. The canyons and more rural areas must rely on other energy sources to supplement electricity such as bottled butane and propane, wood, solar, and wind.

The above ground installation of utility lines may impact the visual quality of the land use change areas. General Plan Policy 56.2.1 and the County Subdivision Ordinance require that all new utility lines be placed underground. Excavating in order to place utility lines underground may result in some adverse environmental impacts, however all grading and excavation shall be pursuant to the County Erosion Control Ordinance.

Adoption of the Central Salinas Valley Area Plan will result in new and intensified residential and commercial land uses which will consume more energy than the uses they replace. This increase in the consumption of fossil fuels and electricity will incrementally increase the rate of depletion of fossil fuels and degrade the environment.

To incorporate energy efficiency into the design and location of development of projects, General Plan Policy 13.3.1 requires lots to be oriented to maximize solar gain and minimize energy losses where possible. Pursuant to General Plan Policies 13.4.2 and 13.4.3, all new residential dwellings shall meet or exceed the building efficiency standards established by the state of California. Building designs which reduce demands for artificial heating, cooling, ventilation, and lighting shall be encouraged. Solar heating shall be required as the primary source for heat in all new swimming pools where it is proven most cost-effective (General Plan Policy 14.2.1). Solar access is protected under the California Solar Rights and Shade Control Acts of 1978.

General Plan Policy 13.3.3 requires plans for major developments to address opportunities for reducing energy used for transportation and Policy 38.1.4 states that the County shall encourage transportation alternatives such as bicycles, car pools, transit, and compact vehicles.

Solid waste in the unincorporated portions of the Planning Area is collected and disposed of by the Rural Garbage and Disposal Service and the King City Disposal Service, Inc.. New development resulting from the implementation of the Area Plan will generate additional solid wastes which will shorten the life-span of the Planning Area landfills. According to the Monterey County Solid Waste Management Plan, the County shall determine the feasibility of recycling program for new and existing residential, commercial and institutional developments (Section 9.3.2(1)). The County should encourage recycling industries to locate within the County to provide a ready market for recycled materials and encourage educational programs promoting recycling.

Other services which may be affected by the cumulative impacts of of the Central Salinas Valley Area Plan include health, recreation, libraries, and cultural resources. The largest need for services will come from the areas which will experience the largest amount of residential growth, particularly Pine Canyon, San Lucas, and Reliz Canyon.

The impacts of growth in the Central Salinas Valley on the public services will be substantially mitigated through implementation of several County General Plan policies and programs. Pursuant to General Plan Policies 48.1.1, 48.2.1, and 48.3.1, the County shall: increase the extent and frequency of health inspections in areas of suspected hazards; support public health nurse services at levels which will service the health needs of the County's rural residents; and encourage coordination between the County Health Department, Department of Social Services, and all related public and private human service agencies.

Pursuant to General Plan Policy 51.4.1, the County shall facilitate the acquisition, development, and operation by other agencies of small, community parks. Implementation and extension of the Pine Canyon Greenway and a park site on the Arroyo Seco River pursuant to Area Plan Policy 51.2.5 (CSV) will provide additional recreation areas.

General Plan Policy 50.2.1 requires that delivery of library services to all areas of the County shall be encouraged. In areas of major development concentrations, the County shall designate locations for library facilities pursuant to General Plan Policy 50.1.1.

Cultural/Historic Resources

Although only about 5% of the total land area of Monterey County has been surveyed, existing evidence suggests the Planning Area is rich with archaeological and historic resources. Using available information and applying topographic and other characteristics most often associated with archaeological sites, the County has delineated archaeological sensitivity zones. Many such areas of archaeological sensitivity have been identified in the Central Salinas Valley. Native American artifacts and other historically significant sites and structures remain in various states of repair (see page 14, Table 2, and Figure 4 of Part I of the Area Plan). The highly sensitive areas generally occur in the foothills and foothill valleys and canyons. Due to the intense cultivation of the Salinas Valley floor few archaeological sites remain in area adjacent to the Salinas River.

Most of the land use changes proposed by the Area Plan occur in sensitive archaeological areas, or, in the case of San Lucas, near a concentration of historic structures. Growth and development in the Planning Area as proposed by the Area Plan could disrupt or degrade archaeologically or historically significant sites. Increasing numbers of residents in the

Planning Area could result in increased use of these sites which in turn could also result in degradation of the historic resources.

The County General Plan Plan contains several policies which will serve to mitigate the impacts of development near- and increased use of- archaeologically sensitive areas. General Plan Policy 12.1.2 states that the Archaeological Sensitivity Map (Area Plan Figure 4) shall be used along with other appropriate data to evaluate whether archaeological resources are threatened by proposed development. Pursuant to General Plan Policies 12.1.3 and 12.1.4, all development within high sensitive zones, and all projects of 2.5 acres or more in high sensitivity zones, shall require an archaeological field inspection prior to project approval. Projects in low sensitivity zones shall require inspections where it is known that archaeological resources are present (General Plan Policy 12.1.5). According to General Plan Policy 12.1.6, reasonable mitigation measures shall be required prior to project approval where development could adversely affect archaeological resources. All available measures, including purchase of easements, dedications, tax relief, purchase of development rights, project alternatives, etc., shall be explored to avoid development on sensitive archaeological sites.

Housing

Several Area Plan policies regarding the development constraints of water supply, topography, of hydrology may limit the construction of housing in the Planning Area. The designation of additional commercial areas in the unincorporated communities of Chualar and San Lucas may stimulate a modest increase in the demand for housing.

Any potential loss of housing from these policies and land use designations will be mitigated by the increased opportunity for new construction allowed by the proposed Area Plan. As the discussion of housing supply and residential holding capacity (pages 76 and 78 of Part I of the Area Plan respectively) indicates, the current residential holding capacity of the unincorporated area is sufficient to meet the projected housing needs of the unincorporated area through the year 2000.

Table 21 on page 76 of the Area Plan indicates that 1419 new residential units will be needed to meet the projected household growth through the year 2000. The residential holding capacity before the adoption of the Area Plan is approximately 1686 residential units. The Central Salinas Valley Area Plan allows for a net increase of approximately 1618 new residential units. This estimate is based upon the maximum buildout of the land use change areas (Table 2) with cross slope by land use change area as the only constraint. The actual allowable net increase will probably be less. (The estimate also assumes an adequate water supply will be available.) It is therefore expected that the Area Plan will meet the housing needs of the Planning Area throughout

its period of applicability.

Preservation of Agricultural Lands

Several of the proposed land use changes and policies occur on or near prime farmlands in the Central Salinas Valley. The Planning Area contains some of the most productive agricultural lands in the State. In addition, agricultural is the mainstay of the Planning Area's economy, employing almost half of the labor force. Experience has shown that residential uses adjacent to or near agricultural operations are generally incompatible, often resulting in nuisance suits against the farmer because of pesticide and fertilizer spraying, dust, and noise. This incompatibility often results in the recession of agricultural operations and the loss of productive agricultural lands.

Areas in Chualar Canyon, the southern portion of Chualar, the mouth of Reliz Canyon, and several yet to be identified smaller parcels addressed in Area Plan Policy 30.0.7.1 (CSV) may experience the conflicts associated with incompatible land uses discussed above.

General Plan Policy 24.1.1 states that the County shall actively encourage and promote the preservation and expansion of the County's agricultural land and agri-business economic base. To achieve this end, it is the Policy of the County to discourage incompatible land uses and protect the County's agricultural lands (General Plan Policies 4.1.3 and 30.0.1).

The impact of specific project proposals will be evaluated according to policies in the General Plan to mitigate their impact on and minimize the loss of productive agricultural lands. General Plan Policy 27.3.3 requires residential subdivisions to be sited with sufficient distance from normal agricultural activities to prevent these activities from becoming nuisances to the residents of the subdivisions. Pursuant to General Plan Policy 30.0.2, permanent, well defined buffer areas shall be provided as part of new non-agricultural development proposals which are located adjacent to agricultural land uses on viable farmlands.

Unavoidable Adverse Impacts

Although most of the impacts identified in the Impacts and Mitigations section of this EIR can be significantly mitigated by various policies in the Area Plan and County General Plan and other County Ordinances, certain unavoidable adverse impacts may result from the implementation of the Central Salinas Valley Area Plan. These unavoidable adverse impacts will occur as the result of localized individual Area Plan actions as well as planning area-wide cumulative impacts.

Table EIR-4 summarizes the unavoidable adverse impacts that can be expected to occur as a result of the implementation of the Area Plan. Since the nature of new development and its

corresponding impacts is not known at this time, the significance of each potentially unavoidable adverse impact cannot be determined.

TABLE EIR-5

Summary of Potential Unavoidable Adverse Impacts

<u>Environmental Component</u>	<u>Impacts</u>
Geology/Soils	<ul style="list-style-type: none"> - Erosion and sedimentation - Slope failure - Earthquake damage
Hydrology	<ul style="list-style-type: none"> - Increase runoff volumes - Erosion and sedimentation in watercourses - Alteration of natural drainage features - Increased overdraft of groundwater aquifers - Loss of aquifer recharge area
Vegetation and Wildlife	<ul style="list-style-type: none"> - Loss of native vegetation - Reduction in diversity of native communities by introduction of non-native species - Removal of mature trees - Loss of sensitive plant or animal species or communities - Loss or degradation of wildlife habitat areas
Energy Conservation	<ul style="list-style-type: none"> - Increase in energy consumption, particularly fossil fuels
Energy Consumption (con.)	
Visual Resources	<ul style="list-style-type: none"> - Intensification of uses and development in vacant, rural, and undeveloped areas will reduce open space or degrade scenic resources
Air Quality	<ul style="list-style-type: none"> - Air quality will be cumulatively degraded by non-point sources
Water Supply and Quality	<ul style="list-style-type: none"> - Reduction of groundwater quality - Increased levels of urban

Noise	<ul style="list-style-type: none"> - pollutants in surface and groundwater - increased nitrate contamination of groundwater - Increased sedimentation in surface water bodies - Increased ambient noise levels
Transportation	<ul style="list-style-type: none"> - Traffic congestion and decreased level of service on county roads
Public Services	<ul style="list-style-type: none"> - Increase in demands on public services and facilities - decrease in current levels of service
Archaeological/Historic Resources	<ul style="list-style-type: none"> - Potential destruction or degradation of archaeological or historic resources
Agricultural Lands Preservation	<ul style="list-style-type: none"> - Net loss of prime farmlands, farmlands of statewide and local importance, and unique farmlands - Loss of productive farmland due to encroachment of incompatible uses

Irreversible Changes to the Environment

Growth in the Central Salinas Valley, as guided by the Area Plan, will result in several irreversible changes to the environment. New development will result in an irreversible commitment of non-renewable fossil fuels, non-recyclable building materials, mineral resources, and water resources.

New development may alter surface hydrology. Current undeveloped areas will be converted to impermeable surfaces. The result will be increased runoff, potential pollution of surface and groundwater, and decreased aquifer recharge.

New development will also result in the irretrievable loss of open space, native vegetation, wildlife habitat, and scenic resources. Viable agricultural lands may also be lost due to conversion to other uses as well as incompatibility with new uses locating near agricultural operations. Although conversion of agricultural lands is not completely irreversible, the precedent set by allowing the new growth is not likely to be reversed.

While these impacts are potentially irreversible, the majority of significant impacts can be mitigated on a project by project basis.

Short-Term Versus Long-Term Productivity

The Central Salinas Valley Area Plan provides policies and a land use plan that will guide development in the Planning Area over the long-term. The Area Plan seeks to provide a balance between the need to accommodate economic growth and adequate housing stock and the need to preserve natural and cultural resources for future generations.

To provide this balance the Area Plan directs the types and location of new development so that short-term economic growth is nurtured while natural resources are preserved for long-term productivity. Growth is directed toward the areas where the least amount of long-term environmental degradation will occur. As Figure EIR-1 illustrates, intensive development is directed to already urbanized areas of Chualar, San Lucas, and Pine Canyon. Lower intensities of development are permitted in the Canyons while the watershed areas of the mountains and the productive agricultural soils of the Valley are preserved. This land use pattern also helps minimize the need to extend services and facilities in a manner that induces additional growth.

Water supplies in the Salinas Valley are currently being used beyond their long-term sustainable yields. Expansion of any water consuming use in the Valley will exacerbate this overdraft. The ability of the Salinas Valley Groundwater Basin to sustain the overdraft is not yet known. A water project utilizing Arroyo Seco River water is currently being studied to help alleviate the overdraft and provide a more balanced use of the Planning Area's water resources.

Growth Inducing Impacts

Growth inducing impacts are typically indirect or secondary effects of a project action. Growth inducing impacts occur when new employment opportunities bring additional people to an area, when infrastructure is extended to or through undeveloped areas, or when constraints to growth are removed. These actions create a need or incentive for additional development.

As Table EIR-2 indicates, the Central Salinas Valley Area Plan allows a limited expansion of commercial uses in the unincorporated communities of Chualar, San Lucas, and Paraiso Hot Springs. The actual expansion of commercial uses and corresponding growth inducing impacts is not expected to be significant. The expansion of residential areas allowed by the Area Plan should mitigate any increased housing demand generated by the expansion of commercial uses. The expansion of residential areas is expected to meet the housing needs of the Planning Area throughout the life-span of the Area Plan. As Table 21 and the discussion of residential holding capacity on pages 78 and 79

indicate, the amount of residential development allowed by the Area Plan significantly exceeds the minimum projected new residential construction that will be needed through the year 2000. New or expanded facilities that will serve new development allowed by the Area Plan may also serve as an inducement for unintended growth that could take advantage of existing facilities. Growth inducing facilities include sewage treatment plants, roads, and water systems. The inducement to unintended growth generated by these facilities is not likely to be significant due to the nature of these facilities in the Planning Area. The only sewage treatment plants serving the unincorporated area are in Chualar and Pine Canyon, with application for a facility in San Lucas pending. The Sierra Vista Plant in Pine Canyon is currently at capacity while the plant in Chualar will have limited capacity remaining after buildout of residential and commercial areas there. While these treatment plants are not expected to have significant excess capacity to attract unintended development, they could be expanded at the expense of the developer.

Most the the new development proposed by the Area Plan will be served by existing access roads. However, expansion of some roadways may be necessary. While these roads will not directly provide access to undeveloped areas, they could be extended at some time in the future to provide such access.

Water supply will be a major constraint affecting potential growth in the Planning Area. While it remains possible to withdraw water from an overdrafted aquifer, increasing and continued overdrafts are not sustainable on a long-term basis and will result in increasing pumping costs. The short-term availability of water may allow continued growth over the short-term, however, a long-term sustainable supply of water should be the primary determinant of growth.

Effects Found Not To Be Significant

All impacts identified in this EIR are potentially significant. The extent of development that will result through implementation of this Plan cannot be determined at this time, however new development could result in significant adverse impacts to natural resources, existing development, or socioeconomic conditions. These adverse impacts would be inconsistent with the policies of the Area Plan and County General Plan, and the provisions of County Ordinances identified as mitigation measures in this EIR. Therefore, where impacts of the proposed Area Plan are inconsistent with these policies and ordinances mitigation measures to ensure consistency are evoked.

Socioeconomic Effects

Changes in the socioeconomic environment are indirectly related to changes in the physical environment. Economic growth is tied to physical growth in two basic ways. First, new development will provide job opportunities for existing and future residents of the Planning Area. Job opportunities will be created in both the

short-term (construction) and long-term (service and professional) categories of employment. Creation of new jobs will stimulate the flow and exchange of goods and services within the Planning Area and strengthen its economic base.

The Area Plan seeks to balance economic growth and conservation of environmental resources. The purpose is to minimize conflicts between these two goals and the impacts that may be created when one goal is given priority over another.

PROJECT ALTERNATIVES

No Project

The "no-project" alternative implies that the Central Salinas Valley Area Plan would not be implemented. Land uses in the Planning Area would remain the same as the 1982 County General Plan. Increased traffic, noise and densities as allowed under the Area Plan would not occur. Existing conditions and opportunities as allowed by the 1982 County General Plan would persist.

Alternative Land Use Proposals

Many different patterns of growth and development are possible. The land uses proposed by the Central Salinas Valley Area Plan are intended to logically incorporate existing land use and vacant land to balance the need for growth yet preserve the natural resources of the Planning Area for sustained prosperity. Although acceptable minor plan modifications could probably occur, the general land use patterns proposed in the Area Plan have been developed to comprised a logical pattern for the future development of the Central Salinas Valley.

Reduced Density

A reduction in the levels of development could occur if less change or growth were to be found desirable for the Central Salinas Valley Planning Area. Impacts of the proposed Area Plan upon hydrology, water quality, traffic, air quality, and other environmental components can be substantially mitigated. However, a reduction in the level of development in certain areas could reduce the acreage of agricultural land which would be converted to a nonresource use or otherwise affected by the land use designations of the proposed Area Plan. Reduced density and intensity would also reduce the demand for water resources in the Planning Area.

Statement of Overriding Considerations

There are numerous potentially unavoidable adverse impacts which could occur as a result of implementing the Central Salinas Valley Area Plan. These potentially unavoidable impacts are identified in the Summary of this EIR and the section of the Environmental Evaluation on Unavoidable Adverse Impacts.

Many of these potentially unavoidable adverse impacts are a natural consequence of rural land being developed for nonresource use. Monterey County is obliged to accommodate its fair share of projected growth whether it occurs in the Central Salinas Valley or in other portions of the County. The need for land for residential, commercial, and industrial development to create jobs and economic prosperity clearly outweighs the unavoidable adverse environmental impacts that could result from implementing the Central Salinas Valley Area Plan.

Social and economic benefits will result from carrying out the policies, programs, and land use designations contained in the Area Plan. Growth must occur and some environmental risk in unavoidable. The provision of new housing and new commercial sites will result in expanded housing and employment opportunities. Because implementation of the Area Plan will improve the area's overall quality of life, this EIR analysis concludes that the economic and social benefits of implementing the Area Plan override its unavoidable environmental risks.

PERSONS AND ORGANIZATIONS CONTACTED

Aleshire, Rick - California Regional Water Quality Control Board

Brennan, Janet - Association of Monterey Bay Area Governments

Brown, Robert - Monterey County Office of Education

Carlton, Austin - CALTRANS, Central Coast Division

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Fulton, Tom - King City Union Elementary School District

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Lytle, Mark - Greenfield School District

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Olsen, Randall - Gonzales High School District

Pryor, Bernie - San Lucas County Water District

Ricker, Michael - Monterey Peninsula Water Management District

Siders, Floyd - King City Joint Union High School District

Snow, Jerry - Monterey County Flood Control and Water
Conservation District

Stevens, Chris - Association of Monterey Bay Area Governments

Taylor, Gene - Monterey County Flood Control and Water
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Williams, Cliff - California Department of Forestry

Revision Of The CSVAP Draft EIR
To Address Planning Commission Recommended Changes
On The Draft Central Salinas Valley Area Plan

I. Insert on pages 27 & 28 of the EIR:

Attachment A - Land Use Change (LUC) #2

A. Description of Planning Commission Recommended Changes
Not Addressed by the Existing Draft EIR

Change in land use (1) from "Agricultural Farmlands 40 Acre Minimum" to "High Density Residential 6 Units/Acre" for 13½ acres located southeast of South Street, adjoining LUC #2 proposed by the Citizens Advisory Committee (CAC), and (2) from "Agricultural Farmlands 40 Acre Minimum" to "Public/Quasi Public" for 6½ acres located northeast of Lincoln Street, adjoining Chualar Union School in Chualar.

B. Water Resources - Environmental Setting

The areas described in the Planning Commission recommended land use changes are comprised of 19½ acres of farmland cultivated in row crops. According to the Monterey County Flood Control and Water Conservation District, the 19½ acres of farmland presently use about 47.5 acre feet (a.f.) of water per year, based on a consumption of 2.5 a. f. per acre per year.

1. Significant Impacts

About 13½ acres of the 19½ acres of land would use 59 a.f. of water per year if built out under the "High Density Residential 6 Units/Acre" land use designation, according to the Flood Control and Water Conservation District. The 6½ acres of land recommended for "Public/Quasi Public" land use would use about as much water as the existing agricultural land uses, or 15 a.f. per year. An increase in water use from 47.5 a.f. per year to 74 a.f. per year does not appear to be significant. However, a net increase in water use of 26.5 acre feet per year will contribute to the cumulative effects on (1) groundwater overdraft in the Pressure Area aquifer, and (2) long-term saltwater intrusion from the coast.

2. Mitigation Measures

Residential developments in Chualar should incorporate water conservation measures into their design. Low water use landscaping should be utilized where feasible. The Chualar County Water District should encourage and participate in water conservation programs to reduce the cumulative effects of groundwater overdraft and saltwater intrusion. The mitigation measures will not completely lessen the cumulative significant impacts to a level of insignificance.

C. Agricultural Preservation - Environmental Setting

The 19½ acres of farmland cultivated in row crops are located on soils designated as "prime" according to the Department of Conservation soil maps. The soils are classified as Chualar loam according to the Soil Conservation Service Soil Survey.

1. Significant Impacts

The Planning Commission recommended land use changes could result in the irreversible commitment of 19½ acres of prime farmland to urban uses.

2. Mitigation Measures

Clustering of residences could preserve a small amount of prime agricultural land. The County should require the dedication of a permanent, well-defined-open-space buffer between new, non-agricultural development proposals and viable, agricultural land uses located on prime soils pursuant to General Plan Policy 30.0.2. The mitigation measures will not completely lessen the significant impacts to a level of insignificance.

D. Sewage Disposal - Environmental Setting

The Chualar County Sanitation District currently provides sewage collection and disposal services to the community of Chualar. The District has a capacity permitted by the Regional Water Quality Control Board of 60,000 gallons per day (gpd). The District is currently operating at or near its permitted capacity.

1. Significant Impacts

The maximum buildout under the Commission recommended "High Density Residential 6 Units/Acre" land use designation for 13½ acres is 78 dwelling units. The 78 dwelling units would

generate 19,500 gpd of wastewater, assuming wastewater generation of 250 gpd per unit. Development under the recommended "Public/Quasi Public" land use designation for 6 ± acres would also generate additional wastewater demand which presently cannot be estimated. The additional wastewater demand could not be accommodated because the Chualar County Sanitation District is currently at or near capacity. The Monterey County Public Works Department has stated that expansion of the Chualar County Sanitation District is not presently feasible because of funding constraints. Expansion of the District is also not presently feasible because of a wastewater-discharge permit limit imposed by the Regional Water Quality Control Board.

2. Mitigation Measures

It appears that the impact of additional wastewater demand on the Chualar County Sanitation District cannot be mitigated to a level of insignificance, unless the property owner of the 19± acres of land is prepared to fund the entire expansion process of the Chualar County Sanitation District, including all studies, engineering, and capital facilities.

E. Alternatives To The Planning Commission Recommended Changes

1. An alternative to the Planning Commission recommended changes on LUC #2 is the Staff Recommendation on LUC #2 contained in Attachment A. Staff recommends that the area within LUC #2 proposed by the CAC be designated "High Density Residential 10 Units/Acre." An undeveloped 5± acre area, presently in agricultural use, is located southerly of South Street within LUC #2. The area could have a maximum yield of 50 dwelling units if built out under the "High Density Residential 10 Units/Acre" land use designation recommended by Staff. The entire area within LUC #2 proposed by the CAC is located within the boundaries of the Chualar County Sanitation District. Therefore, additional wastewater demands of new residential development could be accommodated from within the boundaries of the Chualar County Sanitation District. Staff recommendation on LUC #2 could result in the irreversible commitment of 5 acres of prime farmland to urban uses.

2. The "no project alternative" for the area within LUC #2 would be a "High Density Residential 5-20 Units/Acre" land use designation in the 1982 Monterey County General Plan. The "no project alternative" would not involve any new significant impacts.

Revision Of The CSVAP Draft EIR
To Address Planning Commission Recommended Changes
On The Draft Central Salinas Valley Area Plan

II. Insert on page 85 of the EIR:

Attachment C - Proposal #5

A. Description of Planning Commission Recommended Changes
Not Addressed by the Existing Draft EIR

Proposal #5 concerns the Planning Commission recommendation designating about 103± acres of land as "Urban Reserve" around the City of Gonzales. The areas recommended for urban reserve are in addition to the 126± acres of land located within the existing sphere-of-influence. The Commission-recommended-urban reserve area is located northwest of the existing sphere-of-influence, and northeasterly of the Violini property.

B. Transportation - Environmental Setting

Fanoe Road provides access to the 102.8± acre, Commission-recommended-urban reserve area. U. S. Highway 101 is located to the south of the urban reserve area.

1. Significant Impacts

The significant impacts which would result from designation of the urban reserve area are presently too speculative to determine because the actual land uses in the area are not known at this time.

C. Air Quality - Environmental Setting

The Commission recommended urban reserve area is presently in agricultural land use. Stationary sources of air pollution are presently non-existent in the area.

1. Significant Impacts

Stationary and mobile sources of air pollution would increase in the recommended urban reserve area after it is annexed and developed by the City of Gonzales. The significant impacts on air quality are presently too speculative to address because the actual future land uses in the urban reserve area are not presently known.

D. Water Resources - Environmental Setting

The Commission recommended urban reserve area is comprised of farmland cultivated in row crops. According to the Monterey County Flood Control and Water Conservation District, the 103± acres of farmland presently use about 258 acre feet (a. f.) of water per year, based on a usage of 2.5 a. f. per acre per year.

1. Significant Impacts

Assuming that a portion of the recommended urban reserve area is developed in residential "8 units/acre" land use, then an acre of land would use about 4.52 a.f. of water per year. If one-half of the recommended urban reserve area, or about 51± acres, were developed in residential "8 units/acre" land use, then 226 a.f. of water would be used. Based on the preceding assumptions, water use would increase after conversion to urban uses. The increased water use would contribute to the cumulative effects on (1) groundwater overdraft in the Pressure Area aquifer, and (2) long-term saltwater intrusion from the coast.

2. Mitigation Measures

Residential development projects in the City of Gonzales should incorporate water conservation measures into their design. Low water use landscaping should be utilized where feasible. The City of Gonzales should encourage and participate in water conservation programs to reduce the cumulative effects of groundwater overdraft and saltwater intrusion. The mitigation measures would not completely lessen the significant impacts to a level of insignificance.

E. Agricultural Preservation - Environmental Setting

The Commission recommend urban reserve area contains about 75± acres of prime agricultural soils, according to the Department of Conservation Soil Maps. Danville Sandy Clay Loam is located in the urban reserve area according to the Soil Conservation Service Soil Survey.

1. Significant Impacts

The Commission recommended urban reserve area could result in the irreversible commitment of about 75± acres of prime farmland to urban uses.

2. Mitigation Measures

The City of Gonzales should require the dedication of a permanent, well-defined-open space buffer between new, non-agricultural development proposals and viable, agricultural land uses located on prime soils in developing areas. The mitigation measures would not completely lessen the significant impacts to a level of insignificance.

F. Drainage - Environmental Setting

The Commission recommended urban reserve area is presently in exclusive agricultural use. Drainage impacts on surrounding agricultural lands are currently insignificant.

1. Significant Impacts

Conversion of 103± acres of agricultural lands to urban uses could have potentially significant adverse effects on surrounding agricultural lands in terms of urban runoff and drainage.

2. Mitigation Measures

The City of Gonzales should utilize drainage control implementation measures such as (1) drainage detention and metering ponds, and (2) parks and open space for stormwater detention. According to the Monterey County Local Agency Formation Commission, legislation is now pending which would enable the Flood Control and Water Conservation District to become a responsible agency in the environmental review process. Thus, the District would review every initial study prepared for every annexation proposal, and enable the District to monitor urban runoff impacts on agricultural lands. The mitigation measures would appear to lessen the significant impacts to a level of insignificance.

G. Alternatives To The Planning Commission Recommended Urban Reserve Areas

The "no project alternative" for the Commission recommended urban reserve area would allow the 103± acre area to remain designated as "Agricultural Farmlands 40 Acre Minimum." Thus, expansion of the City of Gonzales would be contained primarily within the existing sphere-of-influence.

Monterey County Planning Department
October 27, 1987

Revision Of The CSVAP Draft EIR To Address Planning Commission Recommended Changes On The Draft Central Salinas Valley Area Plan

III. Insert on page 85 of the EIR

Attachment C - Proposal #12

A. Description Of Planning Commission Recommended Changes Not Addressed By The Existing Draft EIR

Proposal #12 concerns the Planning Commission recommendation that about 647± acres of land be designated as "Urban Reserve" in the CSVAP around the City of Soledad. The Commission recommended urban reserve areas are in addition to the estimated 40 ± acres presently within the existing sphere-of-influence. The additional areas of urban reserve are located generally north of the City in El Rancho San Vincente. Areas also included in the 647± acres of urban reserve are (1) the unincorporated "Commercial" area located northwest of the City along Front Street, and (2) the "island" of land bounded by Highway 101 and the railroad tracks.

B. Transportation - Environmental Setting

San Vincente Road provides primary access from U. S. Highway 101 to the 647± acre Commission-recommended urban reserve area. West Street and Bryant Canyon Road also provide access to the urban reserve area from the City of Soledad.

1. Significant Impacts

Urban development of the 647± urban reserve area would have a potentially significant adverse effect on traffic volumes on San Vincente Road, West Street, and Bryant Canyon Road. The only Highway 101 southbound on-ramp in the City of Soledad is located at the south end of Front Street. Increased use of the Highway 101/Front Street southbound on-ramp would require increased volumes of traffic to use internal City streets. Traffic may become congested and "bottleneck" on Front Street at the Park Street railroad-crossing underpass. The underpass is subject to closure during periods of flooding, accident, or earthquake. Thus, a significant traffic delay could exacerbate an emergency situation.

2. Mitigation Measures

The City of Soledad should construct (1) an access road from San Vincente Road to Moranda Road, and (2) a second southbound on-ramp to Highway 101 from the "island" of land bounded by Highway 101 and the railroad tracks northwest of the City. Construction of transportation facilities would alleviate circulation problems in the City of Soledad based on very preliminary analysis. The mitigation measures would appear to lessen the significant impacts to a level of insignificance.

C. Air Quality - Environmental Setting

The Commission recommended urban reserve area is presently in agricultural land use. Stationary sources of air pollution are currently non-existent in the area.

1. Significant Impacts

Stationary and mobile sources of air pollution would increase in the recommended urban reserve area after it is annexed and developed by the City of Soledad. The specific impacts on air quality are presently too speculative to determine because the actual future land uses in the urban reserve area are not presently known.

D. Water Resources - Environmental Setting

The Commission recommended urban reserve area is comprised of farmland cultivated in row crops. According to the Monterey County Flood Control and Water Conservation District, the 647± acres of farmland in the urban reserve area presently use about 1,618.5 acre feet (a. f.) of water per year, based on a consumption of 2.5 a. f. per acre per year.

1. Significant Impacts

The City of Soledad has stated that between 350-400 acres of land would be necessary for city expansion within the next 20 years. The City has cited the need for additional land to construct low to moderate income housing, based on a persons-per-household figure of 4.18.

If an acre of land were developed at a residential density of "8 units/acre," then it would use about 5.89 a.f. of water per year, according to the Flood Control and Water Conservation District. If 500 acres were developed at a residential density of "8 units/acre," then 2,945 a.f. of water per

year would be used. The 500 acres would have a net water use increase of 1327 a. f. per year. Based on the preceding assumptions, the increased water use would contribute to the cumulative effects on (1) long-term groundwater overdraft in the Pressure Area aquifer, and (2) long-term saltwater intrusion from the coast.

2. Mitigation Measures

Residential developments in the City of Soledad should incorporate water conservation measures into their design. Low water use landscaping should be utilized where feasible. The City of Soledad should encourage and participate in water conservation programs to reduce the cumulative effects of groundwater overdraft and saltwater intrusion. The City of Soledad should design residential subdivisions to ensure that streets and other impervious surfaces are minimized to reduce water consumption necessary for street sweeping and runoff. The mitigation measures would not lessen the significant impacts to a level of insignificance.

E. Agricultural Preservation - Environmental Setting

The Commission recommended urban reserve area contains about 440 ± acres of prime agricultural soils according to the Department of Conservation Soil Maps. According to the Soil Conservation Service Soil Survey, the prime soils are (1) Arroyo Seco gravelly sandy loam, and (2) Chualar loam.

1. Significant Impacts

The Commission recommended urban reserve area could result in the irreversible commitment of an estimated 440± acres of prime farmland to urban uses. The City of Soledad and Oshita Farms contend that the land in the 647± acre urban reserve area, known as El Rancho San Vicente, is poor farming ground. However, the land in the urban reserve area northwest of the City is mapped as prime soil on the Department of Conservation Soil Maps.

2. Mitigation Measures

The City of Soledad should require the dedication of a permanent, well-defined-open space buffer between new, non-agricultural development proposals and viable, agricultural land uses located on prime soils. The mitigation measures would not lessen the significant impacts to a level of insignificance.

F. Drainage - Environmental Setting

The Commission recommended urban reserve area is presently in exclusive agricultural use. Drainage impacts on surrounding agricultural lands are presently insignificant.

1. Significant Impacts

Conversion of 647± acres of agricultural lands to urban uses could allow urban runoff to drain onto surrounding agricultural lands.

2. Mitigation Measures

The City of Soledad should utilize drainage control implementation measures such as (1) drainage detention and metering ponds, and (2) parks and open space for stormwater detention. According to the Monterey County Local Agency Formation Commission, legislation is now pending which would enable the Flood Control and Water Conservation District to become a responsible agency in the environmental review process. Thus, the District would review every initial study prepared for every annexation proposal. The mitigation measures would not completely lessen the significant impacts to a level of insignificance.

F. Sewage Disposal - Environmental Setting

The City of Soledad currently provides sewage collection and disposal service within its city limits. Sewage treatment consists of primary treatment with disposal into percolation ponds near the Salinas River. The sewage treatment system has a permitted capacity of 650,000 gallons per day (gpd). According to the City of Soledad, average peak month flow is 630,000 gpd. Therefore, the City has a minimum sewage capacity of 20,000 gpd.

1. Significant Impacts

If it is assumed that one acre of land in the urban reserve area is developed at a residential density of "8 units/acre," then that development would generate 1,600 gpd of wastewater, based on a wastewater generation of 200 gpd/unit. If one acre of land developed at a residential density of "8 units/acre generates 1,600 gpd, then the City has a minimum sewage capacity for 12 to 13 acres of similar development, assuming a minimum sewage capacity of 20,000 gpd. Based on the preceding assumptions, the City of Soledad does not presently have adequate sewage capacity to annex and develop 647± acres of urban reserve area.

2. Mitigation Measures

The City of Soledad has commissioned the Ch2M Hill consulting firm to conduct a study to determine methods in which the sewage plant can be upgraded. The Regional Water Quality Control Board has notified the City that upgrading is necessary for an increased discharge permit. The upgrading would concern (1) purchase of additional lands for percolation ponds which would provide additional storage capacity in the event of a 100-year flood, and (2) upgrading the system to possibly include secondary treatment. The City of Soledad should implement the most feasible findings developed by Ch2M Hill to receive an increased-discharge permit. The City of Soledad could obtain an increased-discharge permit if they satisfy the requirements of the RWQCB because the sewage treatment plant has a design capacity of 1 million gpd. The mitigation measures would not completely lessen the significant impacts to a level of insignificance.

G. Alternatives To The Planning Commission Urban Reserve Areas

The "no project alternative" for the Commission recommended urban reserve area would allow the 647± acre urban reserve area to remain designated "Agricultural Farmlands 40 Acre Minimum." Proposals for annexation of the area would be inconsistent with the Monterey County General Plan if the urban reserve overlay were not in place. Expansion of the City of Soledad would be contained to the 40± acres of land within its existing sphere-of-influence. No new significant impacts would evolve from the "no project alternative."

Revision Of The CSVAP Draft EIR
To Address Planning Commission Recommended Changes
On The Draft Central Salinas Valley Area Plan

IV. Insert on page 85 of the EIR:

Attachment C - Proposal #15

A. Description of Planning Commission Recommended Changes
Not Addressed by the Existing Draft EIR

Proposal #15 concerns the Commission recommendation that about 210 ± acres of land be designated as "Urban Reserve" in the CSVAP around the City of Greenfield. The Commission recommended urban reserve areas are in addition to the estimated 235± acres of land within the existing sphere-of-influence. The Commission recommended urban reserve areas are located west of the City (1) in an eight block area bounded by Cherry, 12th, 11th, Cypress, and 10th Streets, and (2) in a twelve block area bounded by Elm, 13th, Walnut, 12th, and Apple, Streets and Los Padres Court.

B. Air Quality - Environmental Setting

The Commission recommended urban reserve area is presently in agricultural land use. Stationary sources of air pollution are presently non existent in the area.

1. Significant Impacts

Stationary and mobile sources of air pollution would increase in the recommended urban reserve area after it is annexed and developed by the City of Greenfield. The significant impacts of air pollution are presently too speculative to address because the actual future land uses in the urban reserve area are not presently known.

C. Water Resources - Environmental Setting

The Commission recommended urban reserve area is comprised of farmland cultivated in row crops. According to the Monterey County Flood Control and Water Conservation District, the 210± acres of farmland presently use about 525 acre feet (a. f.) of water per year.

1. Significant Impacts

Assuming that a portion of the recommended urban reserve area is developed in residential "6 units/acre" land use, then an acre of land would use about 3.77 a.f. of water per year. If the entire recommended urban reserve area, or 210 acres, were developed in residential "6 units/acre" land use, then 792 a.f. of water per year would be used. Based on the preceding assumption, water use would increase after conversion to urban uses. Conversion of the urban reserve area from agricultural land uses to urban uses could have a potential net increase in water use of 267 a. f. per year. The increased water use would contribute to the cumulative effects on (1) groundwater overdraft in the Pressure Area aquifer, and (2) long-term saltwater intrusion from the coast.

2. Mitigation Measures

Residential developments in the City of Greenfield should incorporate water conservation measures into their design. Low water use landscaping should be utilized where feasible. The City of Greenfield should encourage and participate in water conservation programs to reduce the cumulative effects of groundwater overdraft and saltwater intrusion. The mitigation measures would not completely lessen the significant impacts to a level of insignificance.

D. Agricultural Preservation - Environmental Setting

The Commission recommended urban reserve area is mapped entirely of prime agricultural soils according to the Department of Conservation Soil Maps.

1. Significant Impacts

The Commission recommended urban reserve area could result in the irreversible commitment of 210± acres of prime farmland to urban uses.

2. Mitigation Measures

The City of Greenfield should require the dedication of a permanent, well-defined-open space buffer between new, non-agricultural development proposals and viable, agricultural land uses located on prime soils. The mitigation measures will not lessen the significant impacts to a level of insignificance.

E. Drainage - Environmental Setting

The Commission recommended urban reserve area is presently in exclusive agricultural use. Drainage impacts on surrounding agricultural lands are presently insignificant.

1. Significant Impacts

Conversion of 210 ± acres of agricultural lands to urban uses could have potentially significant adverse effects on surrounding agricultural lands in terms of drainage of urban runoff.

2. Mitigation Measures

The City of Greenfield should utilize drainage control implementation measures such as (1) drainage detention and metering ponds, and (2) parks and open space for stormwater detention. According to the Monterey County Local Agency Formation Commission, legislation is now pending which would enable the Flood Control and Water Conservation District to become a responsible agency in the environmental review process. Thus, the District would review every initial study prepared for every annexation proposal. The mitigation measures would lessen the significant impacts to a level of insignificance.

F. Alternatives To The Planning Commission Urban Reserve Areas

The "no project alternative" for the Commission recommended urban reserve area would allow the 210± acre urban reserve area to remain designated "Agricultural Farmlands 40 Acre Minimum." Proposals for annexation of the area would be inconsistent with the Monterey County General Plan if the urban reserve overlay were not in place. Expansion of the City of Greenfield would be contained to the 235± acres of land within its existing sphere-of-influence. No new significant impacts would evolve from the "no project alternative."

Monterey County Planning Department
October 27, 1987

**Revision Of The CSVAP Draft EIR
To Address Planning Commission Recommended Changes
On The Draft Central Salinas Valley Area Plan**

V. Insert on page 23 of the EIR:

Attachment D - Draft Policy 28.1.2.2 (CSV)

A. Description of the Planning Commission Recommended Change Not Addressed by the Existing Draft EIR

Draft Policy 28.1.2.2 (CSV) enables the County to conditionally allow by use permit the development of winery-related commercial use facilities in areas designated "Farmlands" subject to conformity with General Plan policies, and review by County Department heads.

B. Conflicts With Neighboring Land Use - Environmental Setting

The "Farmlands" designation is applied to areas in which the exclusive, long-term agricultural use of the property is to be preserved. Wineries are allowed by use permit in areas designated "Farmlands." However, winery-related facilities such as food services, gift shops, and reception halls are not allowed in areas designated "Farmlands."

1. Significant Impacts

Winery-related facilities including food services, gift shops, and reception halls may be in conflict with agricultural land uses on surrounding properties. Winery-related facilities not having convenient access would require facility users to travel over County and farm roads. The increased traffic levels generated by winery-related facilities could conflict with normal agricultural operations because slow-moving farm equipment often uses these roads on a daily basis.

2. Mitigation Measures

The County shall prevent non-agricultural uses which could interfere with the potential of normal agricultural operations on viable farmlands pursuant to General Plan Policy 30.0.0.1. The winery-related facilities shall be subject to the review and requirements of the Monterey County Flood Control and Water Conservation District, Public Works Department, Director of Environmental

Health, and the Director of Planning. The mitigation measures will lessen the significant impacts to a level of insignificance.

C. Alternatives To The Planning Commission Recommendation

The "no project alternative" to Draft Policy 28.1.2.2 (CSV) would not allow winery-related facilities in areas designated "Agricultural Farmlands 40 Acre Minimum." Therefore, no new significant impacts would occur.

Monterey County Planning Department
October 27, 1987

Revision Of The CSVAP Draft EIR
To Address Planning Commission Recommended Changes
On The Draft Central Salinas Valley Area Plan

VI. Insert on page 18 of the EIR:

Attachment D - Draft Policy 30.0.3.2 (CSV)

A. Description of the Planning Commission Recommended Changes Not Addressed by the Existing Draft EIR

Draft Policy 30.0.3.2 (CSV) would designate as a "special treatment" area, the area bounded by Old Stage Road, Encinal Road, and Quail Creek; and the area south of Potter Road to a depth of 1,000 feet. Draft Policy 30.0.3.2 (CSV) will permit in the "special treatment" area on-site soil dependent agricultural greenhouses on a minimum parcel size of 10 acres. Subdivision would only be allowed subject to five conditions stated in the subject policy.

B. Visual Sensitivity - Environmental Setting

The nearly 408± acre special treatment" area is presently designated "Agricultural Farmlands 40 Acre Minimum." A portion of the area is devoted to greenhouses while the remainder of the area is planted in row crops.

1. Significant Impacts

Draft Policy 30.0.3.2 (CSV) would allow subdivision of land into 10-acre-minimum lot sizes to accommodate on-site soil dependent greenhouses and mobile homes in the special-treatment area. The concentration of structures will have a significant impact on the visual character of the area which would contrast with the surrounding row crops and Gabilan Mountains in the distance.

2. Mitigation Measures

The County could require greenhouses and mobile homes to be screened from adjoining roadways by trees and other windbreaks. However, the visual effects of Draft Policy 30.0.3.2 cannot be adequately mitigated to a level of insignificance.

C. Hydrology - Environmental Setting

The "special treatment" area is located within the Eastside Subarea of the Salinas Basin. The Eastside Subarea has a history of groundwater storage losses. Estimated overdraft ranges from 1,500 to 12,300 acre feet per year. The overdraft is primarily caused by lower amounts of precipitation in the Eastside Subarea compared to other agricultural areas with similar production. The Eastside is also a significant distance from the Salinas River which is a major source of basin recharge. A review of historic-water level changes in the Eastside Subarea by the Flood Control and Water Conservation District in the vicinity of Old Stage, Encinal, and Potter Roads indicates a continuing decline. Five wells showed an average-water level loss of about 7 feet from the early 1950's to 1986 (Monterey Flood Control and Water Conservation District, MCFCWCD, October 2, 1987).

1. Significant Impacts

Water demand for on-site soil dependent greenhouses is usually higher than other agricultural operations, according to the MCFCWCD. Therefore, greenhouse development in the "special treatment" area will increase water consumption over existing levels. Increased water consumption is especially critical in light of the overdraft situation in the Eastside Subarea.

The "special treatment" area contains (1) Arroyo Seco gravelly loam along Quail Creek, and (2) Chualar loam south of Potter Road. The highly permeable soils in the "special treatment" area have an estimated percolation rate of about 2.5 feet per day. The soils (1) are part of a beneficial natural-groundwater recharge zone, and (2) have a relatively high potential for groundwater contamination.

2. Mitigation Measures

Specific mitigation measures for increased water consumption must be based on water use figures for individual greenhouse projects. Detailed-material handling procedures for fertilizers and pesticides must be developed and implemented to avoid groundwater contamination.

Roof runoff from greenhouse roofs must be separated from interior greenhouse drainage. It must also be retained on site to the greatest extent feasible, and allowed to percolate to the groundwater aquifer via detention basins. Retention of roof runoff is also a necessary flood control measure.

The MCFCWCD and the Environmental Health Department should review any final plans for greenhouse construction in the "special treatment" area. An area wide hydrology plan for the entire "special treatment" area should be developed and implemented. The mitigation measures will not adequately lessen the significant impacts to a level of insignificance in terms of the cumulative effects on long-term groundwater overdraft in the Eastside Subarea of the Salinas Groundwater Basin.

D. Alternatives to the Planning Commission Recommendation

The "no project" alternative to Draft Policy 30.0.3.2 (CSV) would not create a "special treatment" area allowing on-site soil dependent agricultural greenhouses on 10-acre minimum parcel sizes. Therefore, the visual and hydrological impacts associated with Draft Policy 30.0.3.2 (CSV) would not occur.

Revision Of The CSVAP Draft EIR
To Address Planning Commission Recommended Changes
On The Draft Central Salinas Valley Area Plan

VII. Insert on page 23 of the EIR:

Attachment D - Draft Policies 51.1.4 - 51.1.9 (CSV)

A. Description of the Planning Commission Recommended
Changes Not Addressed by the Existing Draft EIR

Draft Policies 51.1.4 - 51.1.9 (CSV) provide enabling legislation at the County level for the establishment, use, regulation, and maintenance of recreational trails in the Central Salinas Valley Planning Area.

B. Agricultural Viability - Environmental Setting

The Central Salinas Valley Planning Area consists of extensive farmlands within the fertile Salinas Valley. A riparian corridor along the Salinas River bisects the length of the Planning Area. Mountains and alluvial fans are located along the uplands of the Gabilan Ranges, Sierra de Salinas, and Santa Lucia Range. All of the aforementioned areas are intertwined with agriculture.

1. Significant Impacts

The development of a trails plan consisting of a trails map and policies pursuant to Draft Policies 51.1.4 - 51.1.9 (CSV) could have a potential significant adverse effect on the viability of agricultural operations on lands in the vicinity of recreational trails. Public access through agricultural areas could lead to trespass, vandalism, littering, and theft of crops. Public access in the upland areas could lead to increased fire hazard.

2. Mitigation Measures

Public-recreational trail easements shall not be required to be opened to public use until either a public agency or private association agrees to accept liability and responsibility for maintenance of the trail easement. The mitigation measures will lessen the significant impacts to a level of insignificance.

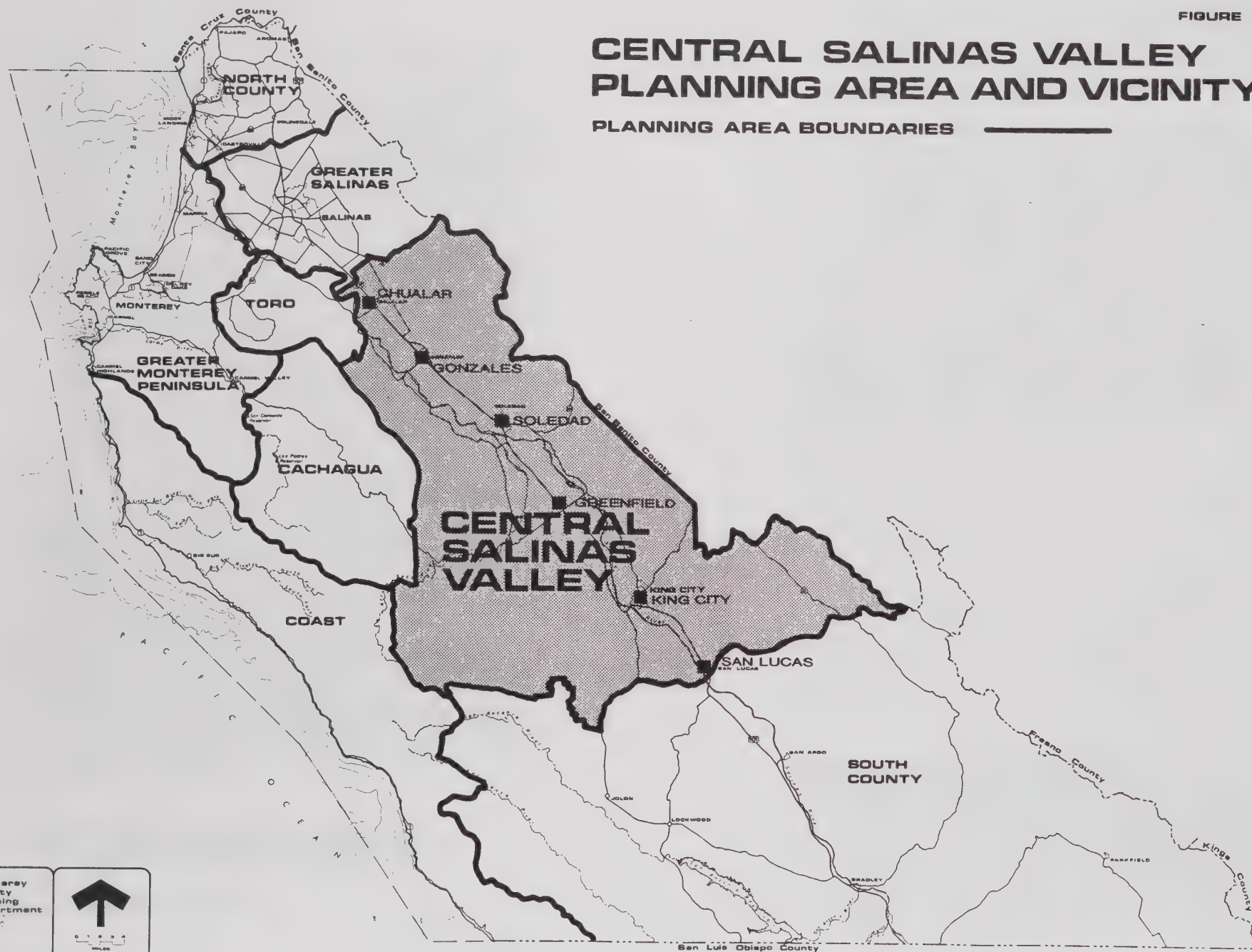
C. Alternatives to the Planning Commission Recommendation

The "no project alternative" to Draft Policies 51.1.4 - 51.1.9 (CSV) would not provide enabling legislation at the County level for the establishment, use, regulation, and maintenance of recreational trails in the Central Salinas Valley Planning Area. Therefore, the significant effects on the viability of agricultural operations on lands in the vicinity of recreational trails would not exist.

FIGURE 1

CENTRAL SALINAS VALLEY PLANNING AREA AND VICINITY

PLANNING AREA BOUNDARIES



List of Public Agencies Commenting on the CSVAP Draft EIR
(Includes County Responses)

1. Association of Monterey Bay Area Governments, Nicolas Papadakis, Executive Director, April 8, 1987.
2. State of California Department of Transportation, A. C. Carlton, District Systems Planner, May 5, 1987.
3. Little Bear Water Company, Inc., Richard Hiwa, General Manager, August 21, 1987.



ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

April 8, 1987

MAIL ADDRESS P.O. BOX 190 MONTEREY CALIFORNIA 93942 • TELEPHONE (408) 373-6116
OFFICE LOCATION 377 PACIFIC STREET

John Mandeville
Monterey County Planning Department
P.O. Box 1208
Salinas, CA 93902

Subject: Draft Central Salinas Valley Area Plan and EIR

Dear Mr. Mandeville:

AMBAG staff has reviewed the area plan and EIR and has the following comments:

Central Salinas Valley Area Plan

1. The holding capacity of the area based on the 1982 General Plan is indicated as 1,686 dwelling units (p. 79). However, the number of dwelling units accounted for in the 1980 census was 2,883 (p. 66). Additionally, in a letter dated June 14, 1986 from Robert Slimmon, Jr. to AMBAG (attached), holding capacity was estimated to be 36,992 to 41,285 dwelling units. This is an extremely large discrepancy which should be addressed.

2. Assumptions used in developing the plan include, "The County will continue its commitment for a dam on the Arroyo Seco River, preferably at the upper "Pools" site" (p. 80). Is this still a County commitment? When was it made and when will the dam be completed? Does the plan assume that water supplies from the dam will be used to address overdraft of the Salinas Groundwater basin?

3. Policy 26.1.4.2 indicates that the County shall undertake a land suitability study of the Arroyo Seco area to define its development capability. When this will be undertaken?

Draft Environmental Impact Report

1. Depending on final estimates of buildout, the Central Salinas Valley Plan would accommodate between approximately 23,000 persons and 151,000 persons. This is in addition to the 41,000 persons resulting from buildout of the general plans for the Central Salinas Valley cities. The EIR, however, addresses only those changes and policies which differ from the 1982 General Plan for the area, i.e., the addition of 1618 dwelling units or approximately 6,000 persons. A comprehensive EIR which reflects all changes to the existing environment resulting from implementation the Central Salinas Valley Plan is needed. Such a precedent was established for the Carmel Valley Master Plan.

2. The EIR lacks specificity in certain areas. Water consumptions and loss of prime agricultural land should be quantified and impacts specifically addressed.

3. The EIR does not specifically address consistency with the "208" Water Quality Plan and 1982 Air Quality Plan. AMBAG staff will assist with these determinations. Data required for determining consistency with the Air Quality Plan include estimate of population for the year 2000 and at buildout.

4. The feasibility of many of the mitigation measures should be addressed as well as whether they reduce impacts to acceptable levels. Measures that indicate specific actions "should" be rather than "shall" be undertaken do not represent measures which have a commitment for implementation.

5. The Cumulative assessment is inadequate. It is based on the addition of 1618 dwelling units rather than on the total new dwelling units which could be accommodated by the area plan. Additionally, the air pollution emissions are summarized incorrectly on p. 92.

Thank you for the opportunity to review the subject documents. If you have any questions, please do not hesitate to call Janet Brennan of AMBAG staff if you have any questions.

Sincerely,


Nicolas Papadakis
Executive Director

Encl.

NP:jb

MONTEREY COUNTY

PLANNING DEPARTMENT

1408 427 1615 - P.O. BOX 1285 - SALINAS, CALIFORNIA 93901

ROBERT SUMMONS, JR.
DIRECTOR OF PLANNING

June 14, 1985

Nicolas Papadakis
Executive Director
Association of Monterey
Bay Area Governments
P.O. Box 190
Monterey, CA 93942

Dear Mr. Papadakis:

The Monterey County Planning Department is in receipt of AMBAG's Preliminary Draft - Systems Capacity Analysis Part I. We find the Draft to be a clear and concise report of population estimates, available water supplies, wastewater treatment capacities, road capacities and seawater intrusion for both Monterey and Santa Cruz Counties. We note the air quality information will be developed in 1986 upon completion of the San Francisco Bay Area transport emissions study. As indicated in the INTRODUCTION the above variables are identified as having the greatest potential impact on future growth in the Monterey Bay area. With a significant variable such as the air quality information not becoming available until 1986, is it then assumed the AMBAG Board will not consider and act on Part I of the Systems Capacity Analysis until the air quality data is available? We ask this question for an important reason; of the nine "planning areas" in Monterey County identified in Appendix A, only three have been adopted by the Board of Supervisors. The remaining six areas are in various levels of development and range from: "yet to begin" to "pending adoption by the Board of Supervisors." Therefore, any population forecasts for area plans or coastal plans yet to be adopted by the Board of Supervisors must be viewed as tentative and subject to change and should be identified as such in any Final Systems Capacity Analysis report. Contained in our comments that follow is an indication of approximately when the remaining area/coastal plans can be expected to be adopted by the Board. The lack of or the status of any inputs (air quality; area/coastal plans) into the Systems Capacity Analysis should be clearly identified to prevent misunderstanding or misuse of the forecasts.

The following represents an analysis of forecasts for the nine Monterey County "planning areas" identified in Appendix A.



Page Two

1. South County

This area plan is in Draft form following completion of the citizens advisory committee (CAC). Any figures are to be treated as extremely tentative. Staff has recently completed a planimetry of CAC approved land use in preparation for Planning Commission hearings.

Total du at buildout: 14,545 - 29,090 (excludes farm labor housing) x 2.99/household = 43,490 - 86,979 at buildout. Board adoption Spring 1986.

2. Central Salinas Valley

Similar to South County, this area plan recently received CAC approval. Any figures are to be treated as extremely tentative based upon draft planimetry of CAC approval.

Total du at buildout: 36,992 - 41,285 (excludes farm labor housing) x 3.66/household = 135,390 - 151,103 at buildout. Board adoption Spring 1986.

Notes: With regard to both the South County and Central Salinas Valley Area Plans; staff believes these high figures reflect not only the premature nature of the planning process, but more importantly the question of the use of "holding capacity" for statistical and planning purposes. These figures do not include significant constraint variables such as steep slopes (County policy prohibits residential development on slopes in excess of 30%), flood plains (development prohibited), potable water, environmental health standards and most significantly---corporate agricultural development. These constraints, when applied later in the planning process will provide more accurate population forecasting than the "holding capacity" method.

Also, with regard to the following completed, or near completed area/coastal plans: "Buildout Figures" are also absent the constraint variables identified above. These forecasts represent gross populations and the likelihood of them being achieved within the 20-year planning time frame is questionable.

3. Greater Salinas Area

This area plan will be adopted by the Board in the fall of 1985. We concur with forecasts of 11,991 du x 2.98/households=11,991.

4. North County Area

This area plan will be adopted by the Board in June 1985. The final forecasts are 11,637 du x 3.40/household=40,304.

5. North County LUP

This LUP has been adopted and amended by the Board and the following forecasts are current: 6021 - 7691 du x 3.40/household = 20,471 - 26,149. Moss Landing remains at a population of 749.

6. Toro Area

This area plan has been adopted by the Board and we concur with the forecasts.

7. Big Sur LUP

This LUP will be adopted by the Board in the fall of 1985. We concur with the forecasts.

8. Greater Monterey Peninsula Area

A. Del Monte Forest LUP

This LUP has been adopted and amended by the Board. The forecasts are: 1,092 new du x 2.45/households + 5,036 (1980 population) = 7,711.

B. Carmel Valley Master Plan

This master plan will be adopted by the Board in the winter of 1985-86. We concur with the forecasts.

C. Carmel LUP

This LUP has been adopted by the Board. We concur with the forecasts.

D. Remainder Monterey Peninsula Area

These areas have been adopted by the Board. We concur with the forecasts.

9. Cachagua Area

This Area Plan will be adopted by the Board in the summer of 1986. We concur with the AMBAG staff estimate.

In conclusion, we appreciate the opportunity to review and comment on AMBAG's Preliminary Draft of Systems Capacity Analysis. We believe the methodology utilized by AMBAG, i.e. use of more detailed area/coastal plans provides a refinement of the 1982 General Plan estimates. The approach does reflect more detail and thus is more accurate. This refinement is further represented in the above forecasts wherein the Board has recently approved or amended area/coastal plans and

changes to Draft figures are contained in our comments. However, as the forecasts for the South County and Central Salinas Valley Areas indicate, substantial mutual efforts will be needed to bring about more realistic population projections in order to provide for adequate housing and public and social services in those areas. Also, we believe possible forecast refinements will be needed for the remaining seven area/coastal plans in the future. We look forward to those mutual efforts in the preparation of Part II forecasts and our staff remain available to assist AMBAG in that effort.

Sincerely,


Robert Slimmon, Jr.
Director of Planning

RS:SM:mc

3. See attached letters from AMBAG regarding (1) consistency of Central Salinas Valley Plan with the 1982 Air Quality Plan for the Monterey Bay Region, and (2) consistency of Central Salinas Valley Area Plan with the "208" Water Quality Plan.
4. The mitigation measures in the Central Salinas Valley Area Plan Draft EIR have been reviewed and evaluated by Staff. Staff finds that all mitigation measures which "shall" be undertaken can lessen the stated significant impacts to a level of insignificance. All mitigation measures which "should" be undertaken are not in all cases feasible. Therefore, they do not reduce the stated significant impacts to a level of insignificance.
5. The air pollution emissions stated on page 92 of the Draft Area Plan have been subsequently reviewed by AMBAG staff. AMBAG finds that the air pollution emissions summarized on page 92 of the Draft Area Plan are correct.



ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

MAIL ADDRESS P.O. BOX 190 MONTEREY CALIFORNIA 93942 • TELEPHONE (408) 373-4118
OFFICE LOCATION 977 PACIFIC STREET



ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

MAIL ADDRESS P.O. BOX 190 MONTEREY CALIFORNIA 93942 • TELEPHONE (408) 373-6118
OFFICE LOCATION 977 PACIFIC STREET

September 23, 1987

Ron Eddow
Monterey County Planning Department
P.O. Box 1208
Salinas, CA 93902

Subject: Consistency of Central Salinas Valley Plan with 1982
Air Quality Plan for the Monterey Bay Region

Dear Mr. Eddow:

This letter is in response to your request for a consistency determination. Based on recent forecasts for the Central Salinas Valley planning area, it is expected that the incorporated and unincorporated areas in the Central Salinas Valley will have a population of approximately 37,997 and 18,874 persons, respectively, by 2000 for a total population of 56,871 persons. The Air Quality Plan accommodated population-related air pollutants for 45,200 persons within the incorporated and unincorporated areas. Based on these data, the proposed project is inconsistent with the 1982 Air Quality Plan and could have an adverse impact on air quality.

The current air quality plan is being updated to incorporate higher population forecasts, and it should be completed by 1989.

If you have any questions, please do not hesitate to call.

Sincerely,

Janet Brennan
Senior Regional Planner

cc: Doug Quetin, MBUAPCD

JB:jb

October 1, 1987

Ron Eddow
Monterey County Planning Department
P.O. Box 1208
Monterey, CA 93902

Subject: Consistency of Central Salinas Valley Area Plan with
"208" Water Quality Plan

Dear Mr. Eddow:

AMBAG staff has evaluated the Draft Central Salinas Valley Area Plan for consistency with the "208" Water Quality Plan. Proposed land use changes could result in degradation of water quality through erosion and septic system use. However, proposed mitigation measures which include implementation of the County Erosion Control Ordinance and the Environmental Health Septic System Permit process address these issues and are consistent with recommendations in the Water Quality Plan. Based on this analysis, the Central Salinas Valley Area Plan is consistent with the Water Quality Plan.

If you have any questions, please do not hesitate to call.

Sincerely,

Janet Brennan
Senior Regional Planner

JB:jb

DEPARTMENT OF TRANSPORTATION

P.O. BOX 8114
SAN LUIS OBISPO, CA 93403 8114
Telephone (805) 549 3111
FDD (805) 549 3259



May 5, 1987

Mr. Raymond Lamb
Monterey County Planning Dept.
P. O. Box 1208
Salinas, CA 93902

Dear Mr. Lamb:

The following is in regard to your request that Caltrans' review be more specific concerning the Central Salinas Valley area plan DEIR.

It is felt that the proposed development of the Pine Canyon area (1,000 additional homes, 10,000 additional vehicle trips) will directly affect both the Route 101/Jolon Road interchange and the Route 101/Broadway interchange in King City. We would like to see a trip distribution showing where these 10,000 additional vehicle trips will go and how they will affect the two above mentioned interchanges.

Currently, the ADT between Jolon Road and King City in the summer months is 34,000 vehicles. It will be about 55,000 in 20 years. An additional spike of say 8,000 daily vehicle trips generated from the Pine Canyon area would call for a six lane facility across the Salinas River between the two interchanges. Caltrans has no funds scheduled for any operational improvement of Route 101 in this area now or in the foreseeable future.

Other than at this location, Route 101 can probably handle the additional traffic projected in the coming years.

Sincerely,

A handwritten signature in dark ink, appearing to read "A. C. Carlton".

A. C. Carlton
District Systems Planner

Monterey County Response To Letter
Of May 3, 1987 On The Central Salinas Valley Area Plan
Draft EIR From The California Department of Transportation
(CalTrans)

I. Significant Environmental Issues Raised

- A. CalTrans believes that the ultimate buildout of the areas within Land Use Changes (LUC) #7, #8, and #9 proposed by the Citizens Advisory Committee (CAC) in Pine Canyon will have a direct effect on Highway 101 traffic. CalTrans is concerned that the buildout will adversely affect both the Route 101/Broadway interchange, and the Route 101/Jolon Road interchange in King City. CalTrans bases its concerns on an estimated 10,000 additional vehicle trips from the estimated buildout of 1,000 additional dwelling units.
- B. CalTrans further states that the average daily traffic (ADT) between Jolon Road and King City in the summer months is 34,000. It will increase to 55,000 ADT by the year 2002. CalTrans estimates that an additional traffic "spike" of 8,000 ADT generated from Pine Canyon would necessitate a six lane facility across the Salinas River between the two aforementioned interchanges. CalTrans also states that it has no funds scheduled for any operational improvement of Route 101 in the King City area.

II. Written Response To Comments Received

- A. Table EIR 2 on page 8 of the Draft EIR estimates a "net unit yield" of 1,048 dwelling units for the areas within LUC #7, #8, and #9 in Pine Canyon. It appears that CalTrans has used the figure of 1,048 dwelling units in raising major environmental issues related to traffic.
- B. The Planning Commission has recommended a substantial modification of the residential buildings proposed by the CAC in Pine Canyon. The Planning Commission is recommending a "net unit yield" of about 481± dwelling units in Pine Canyon at maximum buildout.
- C. The estimated figure of 481 dwelling units is based on the Planning Commission recommendations on LUC #7, #8, and #9 contained on pages 6-9 of Attachment A, "Recommendations On Proposals For Land Use Changes From The CAC."

- D. The estimated 481 additional dwelling units would generate 4,810 ADT which is substantially less than the 8,000 to 10,000 ADT estimated by CalTrans. Mr. Ron Lundquist, Monterey County Public Works Department, has received a copy of the subject Caltrans letter. He has stated that a maximum buildout of 4,810 ADT reduces the need for (1) construction of a six lane facility across the Salinas River, and (2) improvement of both the Highway 101/Broadway interchange and the Highway 101/Jolon Road interchange. Mr. A. C. Carlton, CalTrans District Systems Engineer, concurs with the assessment of Mr. Lundquist. Although marginal traffic conditions will exist on Highway 101 during the two-peak summer months in the year 2007, the significant traffic impacts resulting from the maximum buildout in Pine Canyon have been reduced to a level of insignificance as a result of the recommendation of the Planning Commission.

Memorandum

OFFICE OF THE CLERK OF THE
BOARD OF SUPERVISORS



LITTLE BEAR WATER CO., INC.
31201 PINE CANYON ROAD, SP #125
KING CITY, CA 93930
(408) 383-3324

FILED

DATE: August 25, 1987

TO: BOB SLIMMON, PLANNING DIRECTOR

FROM: NANCY LUKENBILL, CLERK

SUBJECT: RECOMMENDED FOR REFERRAL

AUG 25 9 20 AM '87

CLERK OF THE BOARD
21 August 1987

Attached is a letter from Richard S. Hiwa, Jr., General Manager, Little Bear Water Co., Inc., in regards to the Draft Central Salinas Valley Area Plan concerning the Environmental Impact Report, Land Use Change #8.

This letter is referred to you for your information.

Yours truly,
Nancy Lukenbill
Nancy Lukenbill, Clerk

nl
att.
cc: Each Supervisor

Mr. Bob Slimmon, Planning Director
Monterey County Planning Department
P. O. Box 1208
Salinas, Ca. 93902

Dear Mr. Slimmon,

In regards to the Draft Central Salinas Valley Area Plan concerning the Environmental Impact Report, Land Use Change #8 that pertains to the recommendation by the CAC, several meetings were held with Mr. Cunliff, Chairman of CAC. We went into great detail about the capacity of the system and what Little Bear was willing to do for future expansion. At that time Little Bear informed Mr. Cunliff that we had two pumps pumping at 58,980 gallons per hour, with a capacity of serving 2,271 residential water hookups, based on current water use at the time. In addition, we made it clear that Little Bear would do whatever was required to furnish water to the franchise area and that this would include digging new wells and adding new pipe lines if required. In 1984 one of the wells showed a high nitrate level and use of that well was discontinued. On 1 December 1986, as requested by the Planning Department, a figure of 830 residential water hookups (Incl. A) was given based upon the daily output of one well only.

Also, on 28 May 1987, in a phone conversation with Mr. Ron Eddow, of the Monterey County Planning Department and myself, a figure of 1000 residential hookups based upon data available, was given for future expansion. Again, this was based on the operation of one well. Mr. Bob Harless, Secretary for Little Bear Water Co., had requested a meeting, to discuss the water company, with Mr. Glau, a member of the Subcommittee, which never transpired.

Currently, the company serves 410 residential water hookups, but has the capacity to serve up to 1,000 (Incl. B) residential water hookups using the present system of one well. If required, the company could activate the second well (meets state standards on nitrate level) on the present system, thus it would be able to increase its water production capacity to provide services

to 2307 residential water hookups. In addition, upon the installation and operation (already funded and projected completion with 120 days) of the new well, the company capacity will then be able to serve 3,950 residential water hookups at the current water usage. It is the policy of Little Bear Water Company, that, if and when future residential demand for water services exceeds the company's capacity, the company will take and initiate necessary actions to provide services as required or needed.

The statement by the Environmental Health Department that Little Bear Water Company's infrastructure located in the upper-canyon section of the LUC #8 area is erratic and consists of a conglomeration of pipes from previously independent, private water companies is erroneous. Little Bear has stated once before and again states, for the record, that the infrastructure located in the upper-canyon consists of 6 inch and 4 inch pipes. Only one 2 inch service line maintained by the company which provides water for two homes is owned by the company. All additional lines (service or lateral lines) are privately owned and maintained by either groups or individuals. The statement of previously independent private water companies is misleading, since the system, the main lines only were given to Little Bear by Pine Canyon Water Users, the original and only owners. Since our request for the amendments for the change have been to no avail, Little Bear requests, in all fairness, that the Environmental Health Department provide, in writing, that their statement of erratic and conglomeration of pipes is correct.

Further, the claim that water pressure varies in different locations within the canyon, while some areas are not served at all, is also misleading. The water pressure for LUC #8 meets the standards set forth by the state with a minimum pressure of 30 PSI. In reference to areas not served at all by Little Bear, at the present time, Little Bear Water Co. has no desire to provide any service or support to areas outside its franchise area (Incl. C).

If additional information or assistance is required by your office, please feel free to contact us at: (408) 385-3333/3524.

Your full assistance in helping Little Bear Water Company in setting the record straight is fully appreciated by the company and the community of Pine Canyon.

Sup. Marc DePiero
Sup. Barbara Shipnuc
Sup. Dusan Petrovic
Sup. Sam P. Karas
Sup. Karin Strasser Kauffman
Planning Commissioner
Tom Glau Marit Evans
Manuel Jimenez Jo Stallard
Lynn Riddle Calvin Reeves
Gloria Moore

Yours truly,

Richard S. Hiwa, Jr.

Richard S. Hiwa, Jr.
General Manager
Little Bear Water Co., Inc.

DATA TAKEN FROM THE MONTH OF JUNE 1987

	<u>WELL #1</u>	<u>WELL #2</u>	<u>WELL #3</u>
30 Days in June			
720 Total Hours			
sed KWH	20468 KWH	0	0
Gallons Pumped	7,338,420 GALS		
Gallons Capacity	20,865,600 GALS	21,600,000 GALS	30,240,000
Average Gallons Use Monthly (18,400)			
Residential Water Hookups	1,134	1,173	1,643
Base upon individual well performance			
System Capacity on Operation of Well 1 & 2	2307 Total Residential Water Hookups		
System Capacity on Operation of Well 1 & 3	2777 Total Residential Water Hookups		
System Capacity on Operation of Well 2 & 3	2816 Total Residential Water Hookups		

Incl B

Memorandum •

HEALTH DEPARTMENT
MONTEREY COUNTY

TO : Robert Slimmon, Director of Planning DATE: August 26, 1987

FROM : Walter Wong, Chief of Environmental Health

SUBJECT: Little Bear Water Company
Pine Canyon Area, King City
Central Salinas Valley Plan and EIR

Little Bear Water is currently under the jurisdiction of the Public Water Systems Branch, Department of Health Services. When the utility had less than 200 connections, it was under our jurisdiction. The history of the upper canyon service mentioned in an August 21, 1987 letter from Mr. Richard Hiwa is as follows.

When Little Bear Water Company was owned and operated by Cliff Hall, Mr. Hall supplied water to the Pine Canyon Water Users Association (upper valley) through a reservoir and meter located above Merritt Street. The system consisted of various pipe sizes. The Pine Canyon Water Users Association system is now part of the Little Bear Water Company.

The new owners of Little Bear Water Company (Sierra Vista Properties, Inc.) are currently working to upgrade the system and rectify confusion left by the previous owner. The system consists of a 6-inch main from the beginning of the system to the Keefer property (approximately 1.8 miles up the canyon), a 4-inch main from the end of the 6-inch main to the Harless property (approximately 2.8 miles from the beginning of the system), and a 2-inch service line from the end of the 4-inch main. The new owners have upgraded and replaced certain sections of the existing mains.

In Mr. Hiwa's letter of August 21, 1987, Mr. Hiwa mentions his problems with our EIR comments. Our comments are in regards to the total service system (mains and service in lines), the upper canyon. Mr. Hiwa limits the infrastructure to the 6", 4", and 2" lines up the middle of the service area, and states that "All additional lines... are privately owned and maintained by either groups or individuals. Also certain areas, the upper most section of the Water System Service area cannot be served at this time due to the construction limitations of the current system. As an example, Mr. Joseph Holeman has asked for service to his Minor Subdivision— part of the minor subdivision is out of the service area, but the part that is within the service area cannot be served until the existing 2" line is upgraded.

In regard to the pressure statement, our office has received pressure complaints from the upper section of the system, which we have forwarded to the State Health Department. In 1985-1986 there were concerns regarding water quality but the State Health Department informed this office last week that the problems are mitigated and in fact they will approve an increase in the permit from 410 services to allow inclusion of the Pine Meadows Estates Subdivision.

The mention of expansion to 1000+ connection is based on Little Bear Water Company calculations which is subject to approval by the State Health Department.

The system can increase its service connections if it meets the requirements of the State Health Department as found in California Administrative Code-Title 22 and if the expansion is approved by the State Health Department and the Public Utilities Commission.

Walter Wong
WALTER WONG, M.P.H., R.S.
Chief, Environmental Health

WW/AF:bvd

cc: Richard Hiwa, Little Bear Water Company
Al Friedrich, Environmental Health
Richard LeWarne, Environmental Health

MEMORANDUM

HEALTH DEPARTMENT
COUNTY OF MONTEREY

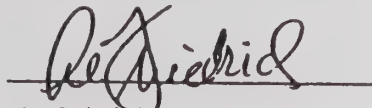
September 9, 1987

To: Herb Naslund, Public Works
From: Al Friedrich, Environmental Health
Re: Pine Meadows Estates--Tentative Map
Clearance of Conditions

On August 19, 1987 our office received clearance of the water system certification from the Public Water System Branch, State Health Department. Based on their approval, we cleared the condition regarding water certification on the Tentative Map.

On September 8, 1987 at 2:00 PM, our office received a letter from the Public Water System Branch which qualified their previous clearance (see attachment). At 4:00 PM Richard LeWarne and myself set up a conference call with Cliff Boven and Sharon Wong of the State Health Dept.. They affirmed the previous clearance, but stated that the clearance did not follow the conditions of the Little Bear Water Supply Permit, i.e. to drill a new well.

The Residential Subdivision Water Supply Standards require proven quantity and quality for water service before the Tentative Map is cleared--only the water system improvements can be bonded. Since the State of California called the system into question--"Due to unreliable water quality production, these wells are not considered part of the system's source capacity"--we must rescind all previous clearances of Condition #55 (Water certification from Little Bear Water Company and the State).



Al Friedrich, RS, MPH
Supervising Sanitarian

cc: Al Morisoli, Little Bear Water Co.
Walter Wang, Director of Environmental Health
Richard LeWarne, Environmental Health
Cliff Boven, State health



LITTLE BEAR WATER CO., INC.
51201 PINE CANYON ROAD, SP. #125
KING CITY, CA 93930
(408) 345-3734

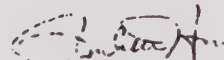
1 December 1986

John Mandeville
Planning Department, Monterey County
P.O. Box 1208
Salinas, CA. 93902

Mr. Mandeville

In answer to your letter, dated 24 November 1986, the following reply is submitted by Little Bear Water Company in regards to the questions. Currently Little Bear serves 410 customers in the Pine Canyon Area and base upon current water use about 420 more residence can be supported by the existing facilities. If and when future residential demand for water services exceed Little Bear capacity, the company will initiate necessary actions with the Public Utilities Commission (PUC) to insure proper documentation.

Sincerely,



Richard Hiwa
Little Bear Water Company

cc: File

DEPARTMENT OF HEALTH SERVICES

31 MARFEE WAY
MARIETTA, CALIFORNIA 94044

September 4, 1987



Mr. Al Friedrich
Supervising Sanitarian
Monterey County Health Department
1270 Natividad Road
Salinas, CA 93906

LITTLE BEAR WATER COMPANY, INC. - PINE MEADOW ESTATES
SUBDIVISION

Dear Mr. Friedrich:

This is to provide some clarification regarding our letter of August 19, 1987 concerning Little Bear Water Company Inc.'s ability to provide service to the above mentioned subdivision.

Water service is currently provided by Well 1, with Well 2 reserved on standby. In mid 1984 - mid 1985, both wells exceeded drinking water standards for nitrates, sulfates, and total dissolved solids. In response to these water quality problems, Little Bear Water Company, Inc. proposed to construct a new well to replace the two wells. The compliance date to construct and place the new well into operation was January 1987, and has been extended to January 1988.

Since the issuance of the 1985 water supply permit, Little Bear Water Company, Inc. has expressed an interest in retaining the two wells on standby for emergency use only. Due to unreliable water quality production, these wells are not considered as part of the system's production capacity.

As such, the additional connections to the water system by the new subdivision should not take place until the new well has been constructed and placed into operation.

If you have any questions in regard to the above, please contact Sharon M. Wong at (415) 540-2147.

Sincerely,

Clifford L. Bowen

Clifford L. Bowen, P.E.
District Engineer
Monterey District
Public Water Supply Branch

cc: Public Utilities Commission, SF
Albin Morisoli, Little Bear Water Company, Inc.

GLB:SHW:sw
870903.1tr/W27-016

Monterey County Response To Letter
Of April 8, 1987 On The Central Salinas Valley Area Plan
Draft EIR From The Association Of Monterey Bay Governments
(AMBAG)

Written Response To Comments Received

Central Salinas Valley Area Plan

1. The holding capacity of the Planning Area based on the Draft Central Salinas Valley Area Plan is 4,569 dwelling units. The 4,569 dwelling units equals the sum of 2,883 dwelling units accounted for in the 1980 Census plus 1,686 dwelling units which would be allowed under the Draft Land Use Plan.
2. On page 80 of the Draft Area Plan, Assumption No. 7 states that "The County will continue its commitment for a dam on the Arroyo Seco River; preferably at the upper Pools site." Assumption No. 7 is not a County commitment according to the Monterey County Flood Control and Water Conservation District. Construction of a dam on the Arroyo Seco River was only studied by the County, but was never a "commitment."
3. The land suitability study of the Arroyo Seco Area, which is recommended pursuant to Draft Policy 26.1.4.2 (CSV), will only be undertaken if the Board of Supervisors adopts Draft Policy 26.1.4.2 as part of the CSVAP.

Draft Environmental Impact Report

1. According to the 1980 U. S. Census, the unincorporated portion of the Central Salinas Valley Planning Area had a population of 12,597 persons in 1980. It also had 2,884 dwelling units in 1980. The Draft Area Plan will add an estimated 6,339 persons to the Planning Area by the year 2005 for a total of 18,936 persons. The total of 18,936 persons is based on the addition of 1,686 dwelling units times 3.76 persons per household in the unincorporated area.

A comprehensive EIR which reflects all changes to the existing environment resulting from implementation of the Central Salinas Valley Area Plan will be developed. The final EIR will be a comprehensive document after the addition to the Draft EIR of (1) quantification for water consumptions and loss of prime agricultural land, (2) documentation of consistency with the "208 Water Quality Plan and 1982 Air Quality Plan, and (3) a feasibility analysis of the mitigation measures and whether or not they lessen the significant impacts to a level of insignificance.

2. Water consumption for areas in the Central Salinas Valley Planning Area is presented as follows:

Central Salinas Valley Area Plan Water Consumption, AMBAG, 1987

	1980 Population 1980 U. S. Census	1980 Water Consumption (Acres Feet)	2005 Population AMBAG Forecast	2005 Water Consumption (Acres Feet)
Chualar	630	0.29	1,525	0.70
Pine Canyon	810	0.41	3,817	1.53
San Lucas	210	0.10	294	0.13
Remainder	10,711	4.60	14,618	6.28
Total	12,369	5.40	19,454	8.64

Estimated Municipal Water Pumping For The Salinas Groundwater Basin
In Acres Feet Per Year
(Includes Incorporated Cities) AMBAG, 1987

1980	2005	Buildout of Draft CSVAP
24,500	42,450	53,220

Loss of Prime Agricultural Lands

Insert on page 26 of the EIR:

A. Agricultural Preservation - Environmental Setting

The 4 parcels in Land Use Change #1 total 67 acres. Three parcels along River Road are physically separated from the other agricultural areas by the Salinas River, River Road, and slightly higher elevation. The three parcels along River Road are presently not cultivated. However, all of the parcels in Land Use Change #1 are designated as prime soils on the Department of Conservation Soil Maps.

1. Significant Impacts

Land Use Change #1 would result in the conversion of 67 acres of farmlands designated as prime to rural residential uses.

2. Mitigation Measures

Adequate mitigation measures do not exist which would lessen the significant impacts to a level of insignificance.

APPENDICES

APPENDIX A

Relationship Between Area Plan Components and State Mandated and Permissive Elements

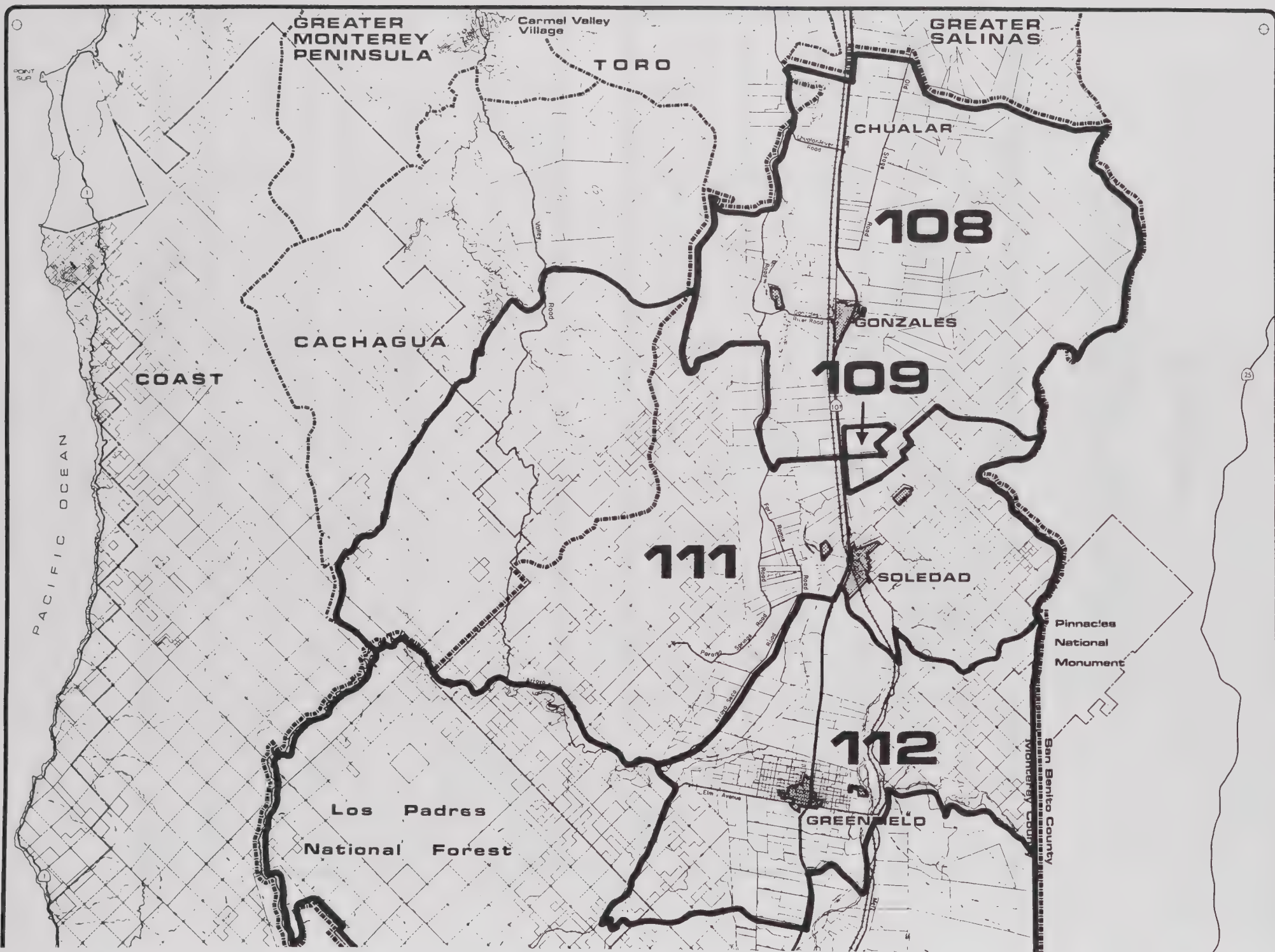
STATE ELEMENTS

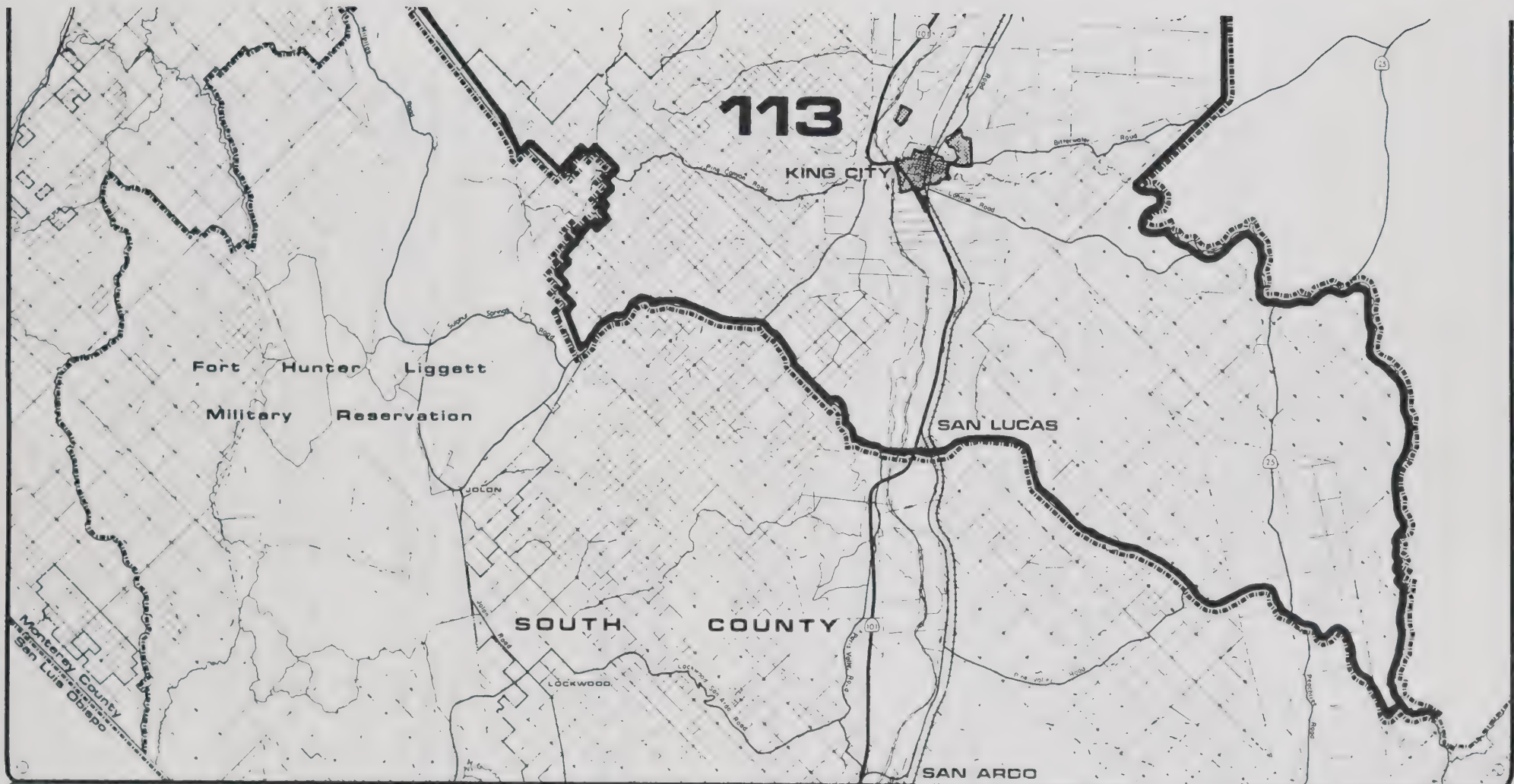
MONTEREY COUNTY GENERAL PLAN COMPONENTS

Mandated	Natural Resources	Environmental Constraints	Human Resources	County Development
Land Use				X
Circulation				X
Housing				X
Conservation	X	X		
Open Space	X	X		
Noise		X		X
Safety		X		X

Permissive				
Park and Recreation				X
Public Services and Facilities				X
Historic Preservation	X			X
Demographic			X	
Socioeconomic			X	
Air and Water Quality		X		

NOTE: This matrix depicts only the major subject areas addressed by each component.
SOURCE: California Government Code Sections 65302 and 65303.





CENTRAL SALINAS VALLEY PLANNING AREA

PLANNING AREA BOUNDARY

APPENDIX B

1980 CENSUS TRACTS

— CENSUS TRACT BOUNDARY



INCORPORATED
CITY AREAS



0 5000 10000
FEET
DECEMBER 1981



SOURCE: MONTEREY COUNTY PLANNING DEPARTMENT, MAY 1980.

APPENDIX C

GLOSSARY

ACTIVE FAULT: A fault along which there has been displacement during the last 11,000 years.

AGRICULTURAL LAND USES: Those uses of an agricultural nature which occur on farmlands designated as prime, of statewide importance, unique, or of local importance. Agricultural land uses also include grazing and any other uses which occur on properties designated as "agricultural" on the General Plan and/or area plan land use map(s).

AMBAG: *Association of Monterey Bay Area Governments* -- a voluntary association of local governments organized under the California Joint Powers Authority for the purpose of providing regional planning services in the areas of the economy, transportation, land use, housing, air quality, and water quality.

AVERAGE DAILY TRAFFIC (ADT): The average number of vehicles traveling (in both directions) on a particular section of road during a 24-hour period.

BROADLEAF EVERGREEN: A plant community encompassing the evergreen oak woodlands and forests whose representative species include madrone, tan oak, live oak, blue oak, and valley oak.

CEQA: *California Environmental Quality Act of 1970* -- a public law requiring all public agencies (state and local) to prepare and certify an environmental impact report on any project they propose to carry out which may have a significant effect on the environment.

CHAPARRAL: An evergreen plant community of drought-adapted shrubs usually found on dry slopes and ridges.

COASTAL SCRUB: A plant community related to the chaparral community in that it consists primarily of low-growing, woody shrubs. However, the coastal locale and heavier soils of the coastal scrub communities contribute to faster growing, more herbaceous plants than those in the chaparral communities.

COASTAL STRAND: A plant community most commonly comprised of low-lying succulent plants found on sand dunes and bluffs close to the ocean.

COLLECTOR ROAD: A road for traffic moving between arterial and local roads, generally providing access to adjoining land.

CONSERVATION: For the goals, objectives, and policies discussed in this Plan, conservation means planned management of natural resources to prevent waste, destruction, or neglect.

COUNTY SCENIC ROUTE: A segment of roadway that has been officially designated by the Director of the California Department of Transportation.

CRITICAL WATERSHED: That portion of the watershed which provides water for beneficial uses such as irrigation, municipal, domestic, commercial, industrial, and riparian habitats through recharge of the groundwater aquifer and/or surface water diversion and/or storage.

DEVELOPABLE LANDS: Those lands which are considered developable with regard to the County's policies, criteria, and standards as well as state law.

DEVELOPMENT: Any activity which occurs on land or water that involves the placement of any structure, the discharge or disposal of any waste material, grading, dredging or mineral extraction. This definition includes any change in density and/or intensity of use including the subdivision of land, construction of any structure, and the harvesting of major vegetation other than for agricultural purposes.

DRYLAND FARMING: Farming without the use of irrigation.

FARMLANDS: Lands classified in one of the following four categories of the Important Farmlands Inventory developed through the USDA Soil Conservation Service. Explicit criteria for each category is available at the local Soil Conservation Service office and at the Planning Department.

- **Prime Farmlands** - Land best suited for producing food, feed, forage, fiber, and oilseed crops, and having the soil quality, growing season and moisture supply needed to produce sustained high yields of crops economically when treated and managed according to modern farming methods. In California, these lands must be irrigated to qualify.
- **Farmland of Statewide Importance** - Land other than prime farmland that has a good combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. In California, these lands must be irrigated to qualify.
- **Unique Farmlands** - Land other than prime farmland and farmland of statewide importance that is currently used for the production of specific high value food and fiber crops.
- **Farmlands of Local Importance** - Land which meets all the criteria for Prime Farmlands or Farmlands of Statewide Importance except that it is not irrigated.

FAULT: A fracture in the earth's crust along which there has been displacement of land masses relative to one another.

FAULT ZONE: A zone consisting of interconnected, closely spaced faults and fault traces.

100-YEAR FLOODPLAIN: The area encompassing the 100-year floodway and the 100-year floodway fringe; a 100-year flood has a one percent chance of occurring in any given year.

100-YEAR FLOODWAY: That portion of the valley floor required to carry the water's flow; a 100-year flood has a one percent chance of occurring in any given year.

GRASSLAND: A plant community consisting primarily of annual grasses and herbs on soils having too little moisture to support larger types of vegetation.

GROUND RUPTURE: A break in the earth's surface along a fault, also called surface faulting.

GROWTH AREAS: Areas designated for intensified development by the Housing Element as development incentive zones (DIZs), by the Growth Management Policy as areas of development concentration (ADC), or by the policies and the land use map as defined in this County General Plan.

HOUSEHOLD: All persons occupying a housing unit.

HOUSING UNIT: The place of permanent or usual abode, including a single family dwelling, a single unit in a two family dwelling, multi-family or multiple dwelling, a unit of a condominium or cooperative housing project, a non-kitchen unit, a mobilehome, or any other residential unit which either is considered to be real property under state law or cannot be moved without substantial damage or unreasonable cost.

LAFCO: *Local Agency Formation Commission* -- a local agency comprised of city, county, and at-large representatives; established by state law to review and approve city incorporations, special district formations, annexations to and detachment from local agencies, and other boundary changes involving local governments.

LIQUEFACTION: The loss of soil strength due to seismic forces acting on water-saturated granular soil; it is a common result of earthquakes in areas underlain by saturated unconsolidated deposits.

LOW INCOME HOUSEHOLD: A household whose income does not exceed 80% of the median income of the Standard Metropolitan Statistical Area (SMSA).

MEDIAN INCOME: That value which divides the income distribution into two equal parts.

MODERATE INCOME: A household whose income does not exceed 120% of the median household in a given SMSA.

MULTIPLE DWELLING UNITS: Duplexes, triplexes, and fourplexes.

OPEN SPACE: Any open land or other space (such as a river) which is predominately lacking in structural development. Open space includes natural areas, wetlands and open water, wildlife habitats, farmlands and grazing areas, and park recreation areas.

PLANNING AREA: One of eight geographic sub-areas of Monterey County established for purposes of the General Plan Update Program. They are the Toro, North County, Greater Monterey Peninsula, Central Salinas Valley, South County, Greater Salinas, Coast, and Cachagua Planning Areas.

POTENTIALLY ACTIVE FAULT: A fault along which the most recent major displacement occurred between 11,000 and 3,000,000 years ago.

PRESERVATION: Use of long-term or permanent safeguards to guarantee the viability of natural or man-made resources.

RARE AND ENDANGERED SPECIES: Plant and animal species identified by the California Department of Fish and Game, the United States Fish and Wildlife Service, the Smithsonian Institute and/or the California Native Plant Society as rare, endangered, and/or threatened.

RIGHT-OF-WAY: A strip of land commonly allocated for transportation purposes, such as a public road, a railroad, or a utility transmission line.

RIPARIAN HABITAT: A natural plant community dependent upon a water body or water course, generally supporting a rich diversity of wildlife.

SCENIC EASEMENT: The right to permanent scenic use of all or a portion of a given parcel. A scenic easement is generally granted to the County by the property owner in exchange for reduced property tax liability.

SCENIC HIGHWAY CORRIDOR: The visible area outside the scenic highway's right-of-way, generally described as "the view from the road."

SLOPE: The natural or artificial incline of ground, with the degree of incline numerically expressed as "percent slope," or the vertical rise divided by the horizontal run.

SPHERE OF INFLUENCE: A plan for the probable 20-year physical boundaries and service areas for local cities and/or special districts.

STATE SCENIC HIGHWAY: A segment of a state highway that has been officially designated by the Director of the California Department of Transportation as part of the State Scenic Highway System.

TOTAL HOLDING CAPACITY: The sum of existing and potential residential, commercial, and industrial development allowable in the County under existing land use regulations.

TRANSIT: Vehicles or systems engaged in the transportation of people by public or private conveyance, primarily rail or bus systems.

URBAN SERVICE BOUNDARY: The limits of an area within a sphere of influence which is expected to accommodate urban development over a five-year period.

VACANCY RATE: The ratio of vacant available housing units to the total housing stock in a given area which is used as an indicator of the general availability of housing. Critical vacancy rate for rental units is 4.5%; for ownership units, 1%.

VIABLE: As used to modify agricultural lands, including all categories of farmlands and grazing lands, it is a measure of potential productivity of commercial agricultural commodities. Factors for consideration include, but are not limited to, the soils' inherent crop producing potential (or range site potential), climatic conditions, water accessibility, availability of developable water, parcel size when not contiguous to other agricultural lands, whether the land is contiguous with other agricultural lands, and whether modern management techniques are feasible on the property. Land does not cease to be agriculturally viable upon becoming feasible for development or through non-management.

WATERSHED: An area or region drained by, or contributing water to, a spring, stream, river, lake, or other bodies of water.

WETLANDS: Plant communities that include fresh and salt water marshes, generally found in areas of shallow, standing or sluggishly moving water. Salt water marshes are partially in contact with the ocean so that they are influenced by tidal action and currents.

WILLIAMSON ACT: Allows local government to enter into long-term contracts with agricultural land owners by lowering property taxes as an incentive to continue agricultural use of the land. Also known as the *California Land Conservation Act of 1965*.

APPENDIX D

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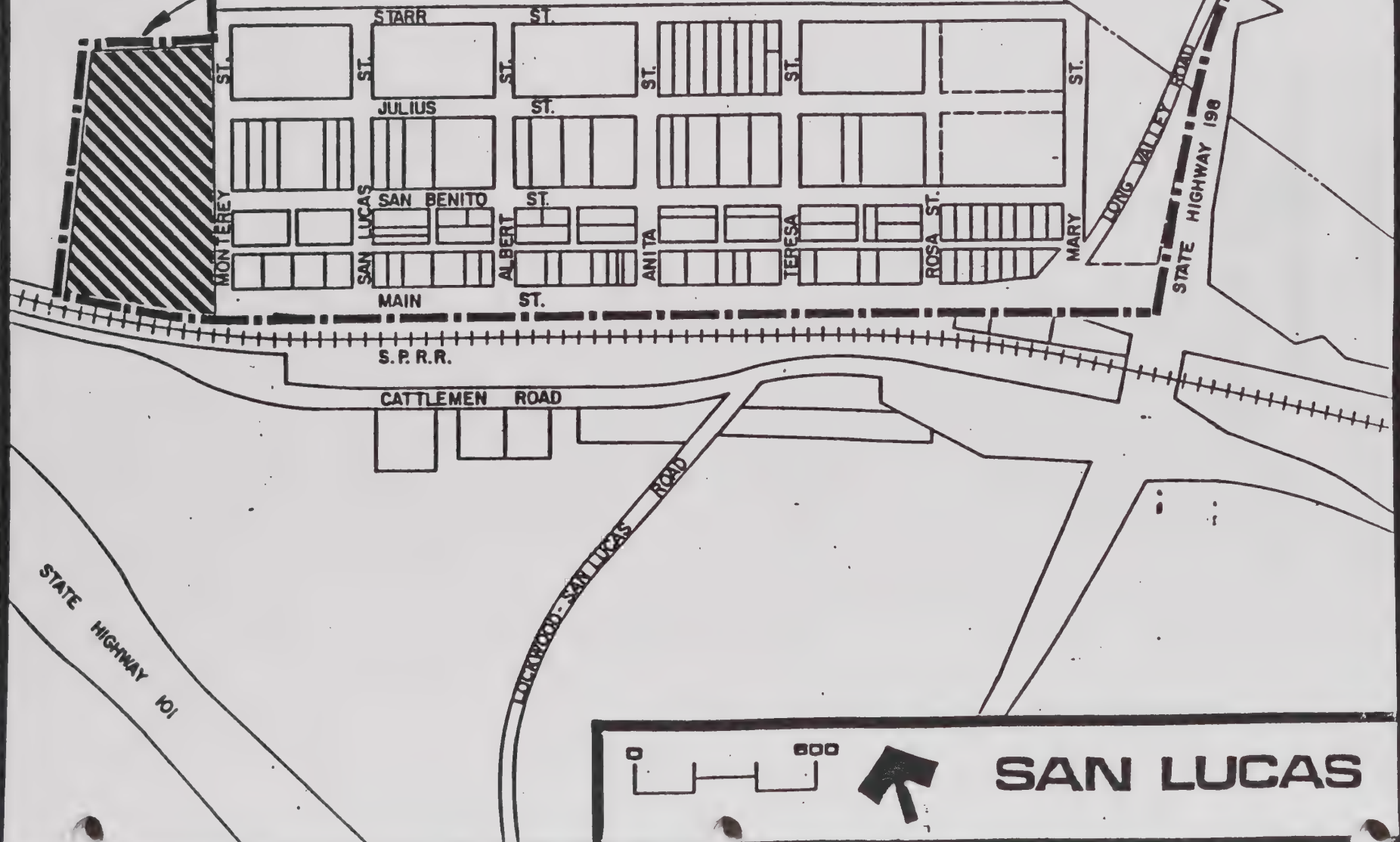
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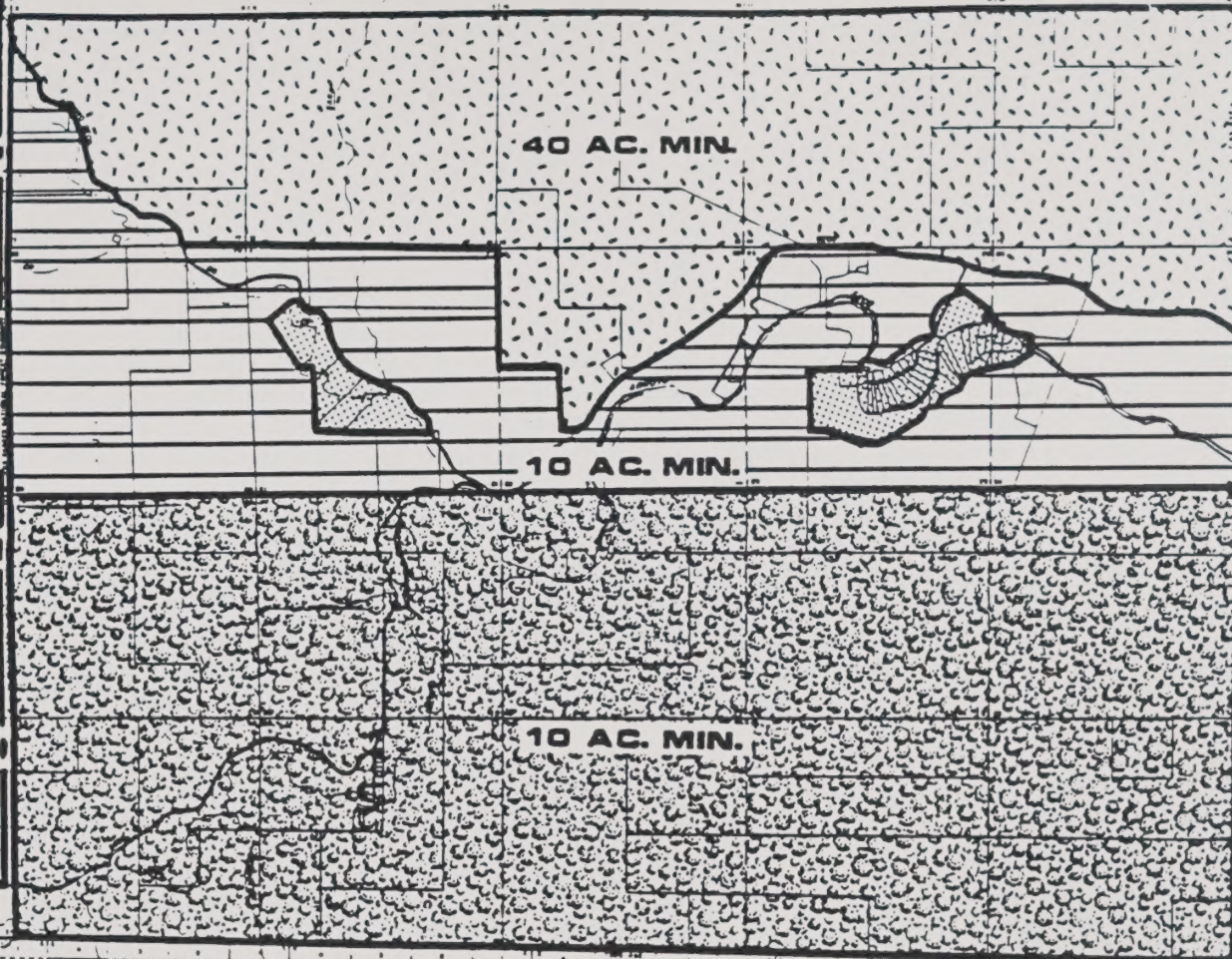
APPENDIX E

*ARROYO SECO AREA
AND
SAN LUCAS DIZ STUDY AREA*

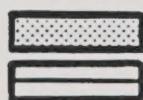
SAN LUCAS DEVELOPMENT INCENTIVE ZONE (DIZ) STUDY AREA

P.C. RECOMMENDED INDUSTRIAL





C.S.V. AREA PLAN ADOPTED LAND USES ARROYO SECO AREA



LOW DENSITY RESID.
1 AC.
RURAL GRAZING
10 AC. MIN.



PERMANENT GRAZING
40 AC. MIN.
**RESOURCE
CONSERVATION**
10 AC. MIN.

	DENSITY	ACRES	EXISTING UNITS	MAX. UNIT BUILDOUT	MAX. BUILDOUT UNDER 30% SLOPE	POTENTIAL NET BUILDOUT UNDER 30% SLOPE
LOW DENSITY RESID.	1 UN./AC.	290	58	290	120	62
RURAL GRAZING	1 UN./10 AC.	2560	12	256	82	70
PERMANENT GRAZING	1 UN./10 AC.	3550	4	88	6	2
RESOURCE CONSERV.	1 UN./40 AC.	6400	24	644	118	94
TOTALS		12800	98	1279	326	228

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